

OFFICIAL
YEAR BOOK
OF AUSTRALIA

No. 60, 1974

Prepared under instructions from the Honourable the Special Minister of State by

J. G. MILLER

ACTING COMMONWEALTH STATISTICIAN



AUSTRALIAN BUREAU OF STATISTICS

CANBERRA, AUSTRALIA

This page was added on 03 December 2012 to included the Disclaimer below.
No other amendments were made to this Product

DISCLAIMER

Users are warned that this historic issue of this publication series may contain language or views which, reflecting the authors' attitudes or that of the period in which the item was written, may be considered to be inappropriate or offensive today.

PREFACE

By the Constitution of the Commonwealth of Australia, the Australian Parliament is empowered, subject to the Constitution, 'to make laws for the peace, order, and good government of the Commonwealth, with respect to . . . Census and statistics.' In the exercise of the power so conferred, a Census and Statistics Act was passed in 1905, and in the year following the Commonwealth Bureau of Census and Statistics was created. The first Official Year Book was published early in 1908. The publication here presented is the sixtieth Official Year Book issued under the authority of the Australian Government.

In the various chapters of the Year Book, and in the special index which precedes the general index, there are references to special articles, background material and items of historic interest which have appeared in previous issues.

Among new or revised material included in this issue, the following items may be especially mentioned.

- Chapter 2. Climate and Physical Geography of Australia. This chapter has been rewritten and includes new sections on frost frequency and variability, global radiation and climatic discomfort.
- Chapter 3. General Government. Results of the Australian Parliament elections held on 18 May 1974 which followed the dissolution of both the Senate and the House of Representatives (page 86). The detailed results of the four Constitution Alteration Referendums also held on 18 May 1974 (page 91).
- Chapter 11. Overseas Transactions. A note on the Industries Assistance Commission (page 306).
- Chapter 12. Transport and Communication. An article on the history of roads in Australia (page 385).
- Chapter 13. Social Security and Welfare Services. A survey of persons covered by hospital and medical expenditure assistance schemes (page 438). Information on functions and operation of the Social Welfare Commission (page 447).
- Chapter 20. Employment and Unemployment. A survey of labour force experience in 1972 (page 710). A survey of labour force mobility (page 712). A survey of employed persons covered by superannuation—type schemes (page 717).
- Chapter 22. Rural Industry. This chapter has been restructured.
- Chapter 23. Water Resources. This chapter, previously named Water Conservation and Irrigation, has been expanded to include notes on topography, drainage, climate and the density of population settlement as factors affecting the availability and quality of water resources.
- Chapter 28. Science and Technology. This is a new chapter which covers the funding and co-ordination of scientific research and development.
- Chapter 29. Cultural Activities, Recreation and Travel. This is a new chapter.
- Chapter 31. Miscellaneous. Enterprise and industry concentration statistics from the 1968–69 integrated economic censuses.

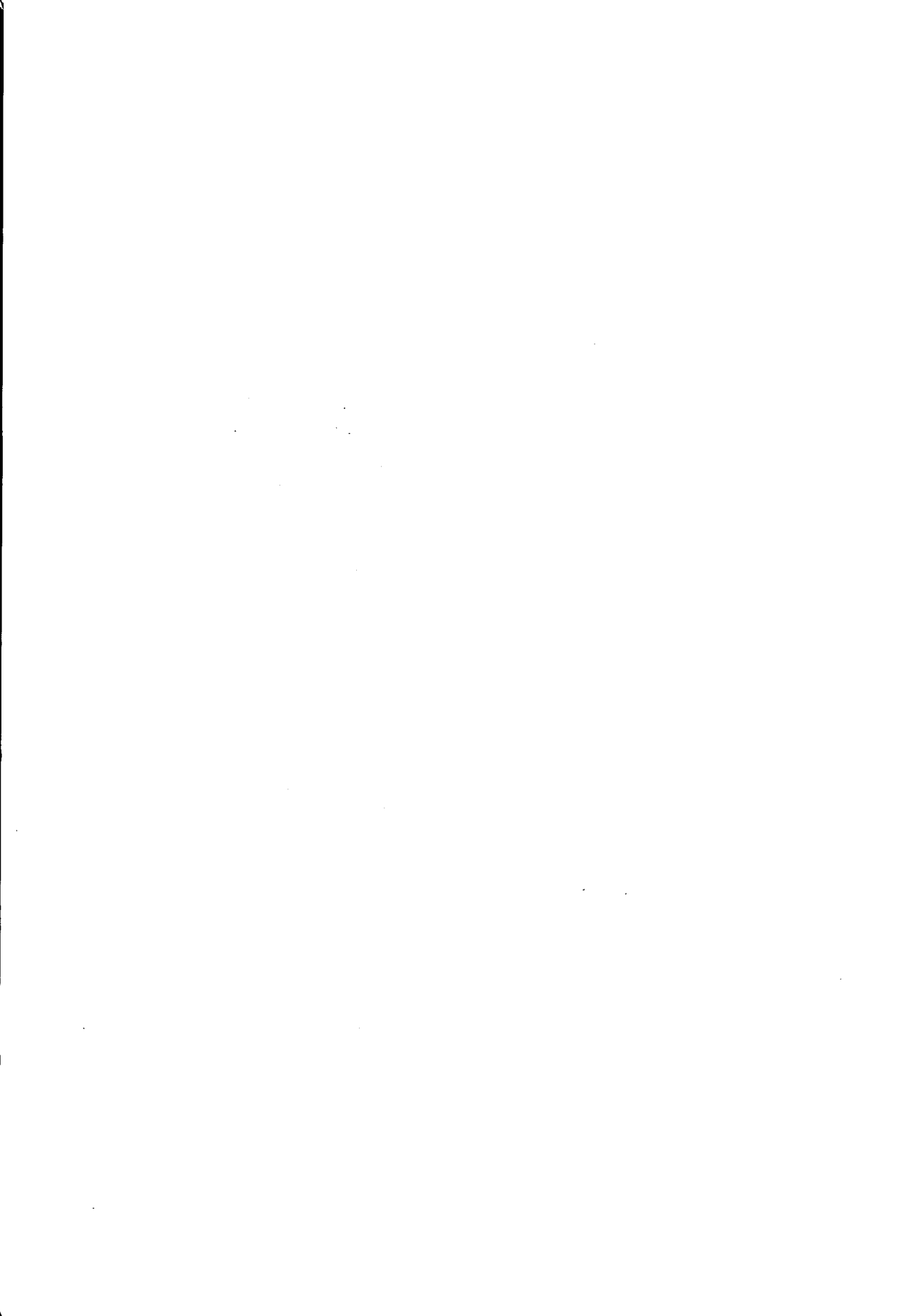
Most of the statistics contained in this volume relate to the years ended June or December 1973. More detailed statistics on subjects dealt with in the Year Book are available in the various annual reports published by this Bureau, and more recent statistics are contained in the *Digest of Current Economic Statistics* (monthly), the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and in other publications issued monthly, quarterly, half-yearly, or yearly. The last pages of this volume contain a list of current and recent printed publications available for purchase, showing issue numbers, dates, and prices.

In the interests of economy and to keep the price at a reasonable level the Year Book has been produced with a soft cover instead of the usual hard cover.

Because of the lateness of this issue of the Year Book, the next issue (No. 61) will be a combined 1975 and 1976 issue and will not be published before the end of 1976.

J. G. MILLER
Acting Commonwealth Statistician

Australian Bureau of Statistics,
Canberra, A.C.T. 2600. June 1975



CONTENTS

	PAGE
CHAPTER 1. DISCOVERY, COLONISATION AND FEDERATION OF AUSTRALIA	1
Early knowledge and discovery of Australia (1); The annexation of Australia (3); The creation of the several Colonies (3); The establishment of the Commonwealth of Australia (5); The Constitution of the Commonwealth (6); The External Territories of Australia (22). <i>Plate—1, Map of Australia (frontispiece).</i>	
CHAPTER 2. PHYSICAL GEOGRAPHY AND CLIMATE	25
General description of Australia (25); Climate of Australia—rainfall (28), temperature (40), frost frequency (49), humidity (50), sunshine, cloud and fog (52), global radiation (54), evaporation (54), winds (56), floods, droughts (57), climatic discomfort (59), climatological tables (63), seasonal rainfall—December 1972 to November 1973 (74). <i>Plates—2-8, Rainfall (29-37); 9, Thunderdays (39); 10-16, Temperatures (41-47); 17, Frost Period (48); 18, Bright Sunshine (53); 19, Global Radiation (55); 20, Evaporation (56); 21, Drought Incidence (58); 22, Heat Discomfort (61).</i>	
CHAPTER 3. GENERAL GOVERNMENT	77
Parliamentary government (77); The Sovereign (77); The Governor-General (77); Governors (79); Ministries (81); Parliaments and elections (83); Referendums (89); Outlay on parliamentary government (93); Australian Government Departments (94); Enactments of the Parliaments (94).	
CHAPTER 4. DEFENCE	95
Department of Defence (95); Naval defence (99); Military defence (101); Air defence (103); Department of Supply (105).	
CHAPTER 5. REPATRIATION	111
War pensions (111); Service pensions (116); Medical treatment for ex-servicemen and dependants of ex-servicemen (118); General Repatriation benefits and miscellaneous (119); The Services Canteens Trust Fund (122); Survey, ex-service personnel, widows and children (122).	
CHAPTER 6. INTERNATIONAL RELATIONS	123
Relations with Asia and the Pacific (123); Participation in the United Nations (124); Australia's official development assistance to less-developed countries (126); Diplomatic representation (128); Overseas trade representation (130).	
CHAPTER 7. POPULATION	131
Types of population statistics (131); The census (131); Population recorded at censuses (132); Population estimates (135); Growth of population (135); Mean population (139); Geographic distribution of population (140); Sex distribution (146); Age distribution (147); General characteristics (147); The Aboriginal population (150); Projections of the population (152); Population of External Territories (153); International population statistics (153); Overseas arrivals and departures (156); Immigration in Australia, powers and legislation of the Australian Government (161); Assisted migration (163); Passports (165); Citizenship (165); Migrant integration services (166); Survey of internal migration (167). <i>Plates—23, Population of Australia (133); 24, Overseas arrivals and departures (156).</i>	

	PAGE
CHAPTER 8. VITAL STATISTICS	171
Provisions for registration and compilation of statistics (171); marriages (172); Divorce and other matrimonial causes (175); Births and fertility—live births and rates (178), masculinity of births (179), fertility rates (179), ex-nuptial births (184), confinements (185), multiple births (187), stillbirths (188); Mortality—deaths (189), rates (190), life tables (191), ages at death (192), infant mortality (195), causes of death (197); Vital statistics of External Territories (202); International vital statistics (203).	
<i>Plates—25, Births, deaths and marriages Australia (175); 26, Rates of births, deaths and natural increase (180); 27, Age-specific birth rates (181); 28, Infant mortality rates (196).</i>	
CHAPTER 9. HOUSING AND BUILDING	205
Census dwellings (205); Building (212); Government activities in the housing field (225); Advances to home purchasers (236).	
<i>Plates—29, New houses (214); 30, New flats (218).</i>	
CHAPTER 10. LABOUR, WAGES AND PRICES	243
Retail prices and price indexes (243); Consumer price index (244); Tabular statements of retail price index numbers (246); International comparisons (250); Wholesale prices and price indexes (251); Export price indexes (258); Arbitration and Wage Boards Acts and associated legislation (260); Rates of wage and hours of work (262); Average weekly earnings (268); Surveys of wage rates, earnings and hours, 1960 to 1973 (269); Survey of income distribution, 1968–69 (274); Determination of wage rates (283); Annual leave (286); Long service leave (287); Industrial disputes (287); Labour organisations (297); Prices Justification Tribunal (298).	
<i>Plate—31, Industrial disputes (290).</i>	
CHAPTER 11. OVERSEAS TRANSACTIONS	301
Overseas trade, constitutional provisions and legislation (301); Government authorities (306); Trade agreements (307); Trade services (311); Export Payments Insurance Corporation (313); Collection and presentation of trade statistics (313); Total overseas trade (318); Classified summary of overseas trade (319); Exports of principal articles of Australian produce (320); Exports, by industrial group (321); Imports of merchandise, by economic class (322); Direction of overseas trade (323); Trade with eastern countries (331); Ships' and aircraft stores (331); Overseas trade at Customs ports (332); Movement of bullion and specie (333); Import clearances and net customs duties collected (334); Overseas trade in calendar years (334); Excise (335); Private overseas investment (335); Balance of payments—explanatory notes (341), tables (344); International reserves (348); Indexes of values of exports and imports at constant prices (348).	
<i>Plates—32, Overseas trade (317); 33, Value of exports and imports, proportion by country (317).</i>	
CHAPTER 12. TRANSPORT AND COMMUNICATION	351
The Australian Transport Advisory Council (351); Control of Shipping (352); Collection and presentation of statistics (355); Overseas shipping (356); Interstate shipping (357); Australian trading vessels (358); Shipping at principal ports (359); Shipping cargo (359); World shipping tonnage (363); Vessels registered (363); Shipping casualties (364); Government railways (364); Standardisation of railway gauges (366); Operations, Government railway systems (368); Private railways (374); Tramway, trolley-bus, bus, and ferry services (375); Motor vehicles (376), Survey of usage (376), on register (377); Registrations of new motor vehicles (378); Licences (379); Road traffic accidents (379); Roads (383); History of roads in Australia (385); Air transport (393), international activity (394), aerodromes, facilities, aircraft on register, licences, accidents (397); Postmaster-General's Department, facilities, employees, finances (397–400); Postal services (401); Internal telecommunication services (402); Overseas telecommunication services (405); Radiocommunication stations authorised (407); Broadcasting services (407); Television services (409); Broadcast listeners' and television viewers' licences (410).	
<i>Plates—34, Government and Private Railways—freight traffic (367); 35, Civil Aviation (396).</i>	

CHAPTER 13. SOCIAL SECURITY AND WELFARE SERVICES 413

Australian Government expenditure on social security services (413); Australian Government social services—reciprocal agreements with other countries (415), benefits provided (415), age and invalid pensions (416), widows' pensions (418), supporting mother's benefit (420), double orphans pension (420), funeral benefits (421), maternity allowances (421), child endowment (422), unemployment and sickness benefits (425), special benefit (425), sheltered employment allowance (427); Australian Rehabilitation Service (427); Assistance to homes for aged and disabled persons (428); The States Grants (Deserted) Wives Act 1968 (431); Telephone rental concessions, compassionate allowances (432); National health benefits—cash benefits to persons (433); hospital, nursing home, handicapped children's benefits (434); Medical benefits (436); Subsidised Health Benefits Plan (438); Pensioner Medical Service (438); Survey of persons covered by hospital and medical expenditure assistance schemes (438); Australian Government provision of welfare services to Northern Territory, Australian Capital Territory (441); Aboriginal welfare (441); State expenditure on certain welfare services (442), Surveys by the Australian Department of Social Security (443), Social Welfare Commission (447); The role of voluntary agencies in Australian social welfare (447).

CHAPTER 14. PUBLIC HEALTH 449

National health services—quarantine, human, animal and plant (449-52); Personal health services and subsidies—milk for school children scheme (453); Pharmaceutical benefits (453); Anti-tuberculosis campaign (454); Mass immunisation campaigns (455); Community health services and subsidies (456); National health services organisations (456); Australian government health advisory organisations (457); Australian Government grants to States (459); Grants to organisations associated with public health (460); State public health legislation and administration (461); Supervision and care of infant life (462); Medical and dental inspection of school children (463); public hospitals and nursing homes (464); Private hospitals and nursing homes (466); Repatriation hospitals (467); Hansenside hospitals (467); Mental health institutions (468); Notifiable diseases (469); Survey of chronic illnesses, injuries and impairments (470); Cremation (470).

CHAPTER 15. LAW, ORDER, AND PUBLIC SAFETY 473

Lower (magistrates') courts (473); Higher (judges') courts (476); Bankruptcy (478); Transactions of the High Court (479); Selected crime reported to police (479); Drug offences (483); Police (488); Prisons (490); Expenditure on law, order, and public safety (491); Fire brigades (492); Patents, trade marks and designs (494); Copyright (495).

CHAPTER 16. NATIONAL ACCOUNTS 497

Description of the National Accounts (497); National income and expenditure tables (502); Description of items in the national income and expenditure accounts (508).

Plate—36, Articulation of Australian National Accounts (498).

CHAPTER 17. PRIVATE FINANCE 513

Currency (513); Australian notes in circulation (513); Australian coinage (514); Gold receipts, issues and price (514); Rates of exchange (515); Volume of money (515); Banking (516); Reserve Bank of Australia (518); Trading banks (520); Savings banks (527); Commonwealth Development Bank of Australia (530); Australian Resources Development Bank Limited (530); Insurance legislation (531); Life insurance (532); Fire, marine and general insurance (539); Export Payments Insurance Corporation (540); Pension and superannuation schemes (540); Finance companies (545); Instalment credit for retail sales (548); Pastoral finance companies (550); Rural debt (551); New capital raisings by companies in Australia (551); Short-term money market (553); Unit trusts, land trusts and mutual funds (555); Registered building societies (556); Friendly societies (557); Co-operative societies (558); Lotteries (559); Betting (560); Probates and letters of administration (560); Australian Industry Development Corporation (560).

Plates—37, Banking (529); 38, Life Insurance (532).

	PAGE
CHAPTER 18. PUBLIC FINANCE	563
Financial provisions of the Constitution (563); Australian Government Budget (564); Financing of the Australian Government deficit (565); Authorities of the Australian Government—general (566), receipts and outlay (568), main components of outlay (572), main components of receipts (585); State authorities—general (606), receipts and outlay (607), main components of outlay (609), main components of receipts (611); Local authorities—area, population, rateable property (614), receipts and outlay (615); All public authorities—receipts and outlay (617), main components of outlay (618), main components of receipts (619), level of government (620); Public sector borrowing (621); Australian Government and States: loan transactions and Government securities on issue (622); National debt sinking fund (629); State and local authorities' indebtedness (632); Roads and bridges (635); Water supply, sewerage and drainage (643); Harbour boards and trusts (652).	
<i>Plates—39, Authorities of the Australian Government (567); 40, State Authorities (609); 41, All Public Authorities (618).</i>	
CHAPTER 19. EDUCATION	657
Developments in education—primary and secondary (657), special groups (659), tertiary (660); Technical and further education (661); Student assistance schemes (662); Early childhood services (662); Educational training in the Defence Force (663); Schools (664); Technical and further education (668); Teacher education (669); Colleges of advanced education (670); Universities (673); Expenditure on education (678).	
<i>Plates—42, Grades in Government Schools—diagram (666); 43, University students (675).</i>	
CHAPTER 20. EMPLOYMENT AND UNEMPLOYMENT	689
The labour force (689); The population census (689); The population survey (693); The labour force survey (693); Survey of leavers from schools, universities or other educational institutions (706); Survey of multiple jobholding (708); Labour force experience during 1972 (710); Labour mobility (712); Survey of child care, May 1973 (715); Survey of superannuation, February 1974 (717); Employed wage and salary earners (720); Commonwealth Employment Service (724).	
<i>Plate—44, Labour force participation and unemployment rates (697).</i>	
CHAPTER 21. MANUFACTURING INDUSTRY	727
Introduction (727), standardisation (727); Statistics from 1901 to 1967–68 (728); Statistics since 1968–69 (729); Concept of 'value added' (731); Tabulations (732–6); Electricity and gas establishments (736); Principal factory products (738); Enterprise and Industry Concentration Statistics (742).	
CHAPTER 22. RURAL INDUSTRY	743
Disposal of crown lands (743); Closer settlement and war service settlement (745); Alienation and occupation of crown lands (745); Number and area of rural holdings (746); Land utilisation on rural holdings (747); Classification by size and type of activity (747); Crops—progress of cultivation (747), area (748–50), production and yield (751), gross value (753); Wheat (755); Oats (764); Barley (766); Sorghum (770); Maize (770); Rice (772); Fodder crops (772); Soybeans (774); Lupins (774); Sugar cane (775); Tobacco (778); Cotton (779); Peanuts (781); Flax for linseed (781); Hops (782); Rapeseed (782); Safflower (782); Sunflower seed (783); Vegetables for human consumption (783); Fruit (786); Vineyards (790); Livestock numbers (793); Sheep (793); Wool (796); Mutton and lamb (803); Cattle (805); The dairying industry (809); Buffaloes (817); The pig industry (818); The poultry industry (820); Horses (826); Miscellaneous livestock products (826); The bee-farming industry (827); Soils of Australia (829); Soil improvement and conservation (829); Aerial agriculture (833); Farm stocks of major grains (834); On-farm consumption of major grains (835); Agricultural machinery on rural holdings (837); Rural employment (838); Assistance to and regulation of agriculture (839); Crops and crop products (841); Livestock and livestock products (850).	
<i>Plates—45, Wheat for grain, 1940–41 to 1973–74 (758); 46, Production of oats, 1945–46 to 1972–73 (765); 47, Production of barley, 1945–46 to 1972–73 (768); 48, Production of raw sugar, 1945–46 to 1972–73 (776); 49, Production of potatoes, 1945–46 to 1972–73 (785); 50, Livestock, Australia, 1880–1973 (795); 51, Sheep numbers, Wool production 1880–1973 (797); 52, Production of meat, 1931–32 to 1972–73 (808); 53, Milk production, 1941–42 to 1972–73 (812).</i>	

	PAGE
CHAPTER 23. WATER RESOURCES	861
Water resources and their management (861); Surface supplies (862); National and interstate aspects (871); International aspects (875); New South Wales (876); Victoria (880); Queensland (883); South Australia (888); Western Australia (891); Tasmania (893); Northern Territory (895); Australian Capital Territory (896); Papua New Guinea (997).	
CHAPTER 24. FORESTRY	899
Source of statistics (899); Forestry in Australia (899); Plantations (901); administration and research (903); Employment in forestry (906); Manufacturing activities (906); Forest production (907); Timber and timber products (908); Overseas trade in forest products, etc. (910).	
CHAPTER 25. FISHERIES	913
Fisheries resources and their commercial exploitation (913); Fisheries administration and research (914); Collection and presentation of fisheries statistics (917); Boats and equipment used in fisheries (917); Employment in fisheries (918); Production, processing and domestic marketing of fisheries products (919); Consumption of edible fisheries products (925); Overseas trade in fisheries products (926).	
<i>Plate—54, Fisheries map (916).</i>	
CHAPTER 26. MINERAL INDUSTRY	929
Geology (929); Mineral resources (933); Administration (936); Government assistance (940); Research (944); International relations (946); Mining industry statistics, integration of mining census with other economic censuses (948); Mineral production (952); Foreign ownership and control of the mining industry in Australia (966); Mineral exploration (970); Petroleum exploration (973); Mineral processing and treatment (974); Overseas trade (975); Review of recent developments (978).	
<i>Plates—55, Mineral industry map (932); 56, Mine production of principal metals (gold, silver, lead, zinc and copper) (961); 57, Mine production of principal metals (tin, iron) and production of coal (962); 58, Mine production of principal metals (bauxite, manganese, mineral sands) (963).</i>	
CHAPTER 27. ELECTRIC POWER GENERATION AND DISTRIBUTION	981
Introduction (981); Snowy Mountains Hydro-electric Scheme (982); New South Wales (986); Victoria (988); Queensland (989); South Australia (991); Western Australia (992); Tasmania (992); Commonwealth Territories (994).	
<i>Plates—59, Snowy Mountains Scheme—map (983); 60, Snowy Mountains Scheme—diagrams (984).</i>	
CHAPTER 28. SCIENCE AND TECHNOLOGY	995
Overview (995); Co-ordination and advice (996); Funding (997); Manpower (1005); Resources and services (1006); Government research agencies (1007); Research in industry (1010); Research in universities and colleges (1012); Social science research (1012); International activities (1013).	
<i>Plates—61, Broad features of total expenditure on R and D in 1968–69 (996); 62, Sources of funds for R and D by sector of performance (998); 63, Gross expenditure on research and development by objectives (999); 64, Intramural expenditure in the Australian Government sector by objectives (1000); 65, Intramural expenditure in the Australian Government sector by field of science (1001); 66, Major channels of Australian Government financial supply for R and D (1002); 67, Intramural expenditure in the State Government sector by field of science (1003); 68, Intramural expenditure in the higher education sector by field of science (1003).</i>	
CHAPTER 29. CULTURAL ACTIVITIES, RECREATION AND TRAVEL	1017
Cultural organisations and financial assistance for the arts (1017); The performing arts (1020); Music (1021); Film (1022); Art (1023); Museums (1024); Literature (1024); Libraries (1026); Archives (1028); Botanical and zoological gardens (1029); Community recreation (1030); Fitness (1031); Sports development (1031); Youth affairs (1032); Tourism (1032); Internal travel (1033); Overseas travel (1033); Sea cruises from Australia (1037).	

	PAGE
CHAPTER 30. THE TERRITORIES OF AUSTRALIA	1037
The Northern Territory—general description (1037), population (1039), Aboriginal affairs (1039), production (1040), trade, transport and communication (1046), education (1048), finance (1050); Australian Capital Territory—general description (1051), National Capital Development Commission (1051), works and services (1052), production (1052), transport and communication (1054), social (1054), finance (1056); Norfolk Island (1057); Papua New Guinea—general description (1060), climate (1060), population (1067), constitutional development (1068), judiciary (1070), agriculture and animal industry (1070), primary industries (1071), secondary industries (1076), electric power generation and distribution (1077), trade, transport and communication (1078), indigenous labour (1080), housing (1081), education and health (1082), finance (1083); Heard and McDonald Islands (1086); Australian Antarctic Territory (1086); Cocos (Keeling) Islands (1087); Christmas Island (1088); Coral Sea Islands (1089).	
<i>Plate—69, Papua New Guinea—annual rainfall map, 1972 (1066).</i>	
CHAPTER 31. MISCELLANEOUS	1091
Valuation of Australian primary production (1091); Indexes of agricultural production (1092); Apparent consumption of foodstuffs and beverages (1095); Internal trade (1099); Economic Censuses, 1968–69 (1099); Wholesale Trade (1099); Retail Trade (1101); Enterprise Statistics—Integrated Economic Censuses, 1968–69 (1106); Industry Concentration Statistics (1110); Interstate trade (1114); Statistical organisation in Australia (1114); Statistical and other official publications of Australia (1116).	
STATISTICAL SUMMARY, 1901–02 TO 1973–74	1121
CHRONOLOGICAL TABLE, 1955 TO 1974	1135
DIARY OF PRINCIPAL ECONOMIC EVENTS, 1973–74	1141
APPENDIX	1149
LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES	1153
GENERAL INDEX	1159
PRICES OF PRINTED PUBLICATIONS ISSUED BY THE CENTRAL OFFICE OF THE AUSTRALIAN BUREAU OF STATISTICS	1183

SYMBOLS AND OTHER FORMS OF USAGE IN THIS YEAR BOOK

The following *symbols*, where shown in tables, mean:

n.a. —not available

. . —nil or less than half the final digit shown, or not applicable

p —preliminary—figure or series subject to revision

r —figure or series revised since previous issue

n.e.i. —not elsewhere included

n.e.c.—not elsewhere classified

n.s. —not stated

m.—males; f.—females; p.—persons

— Break in continuity of series (where drawn across a column between two consecutive figures).

A blank space in a column of figures means that the figure concerned is not yet available.

The following *abbreviations* are used for the titles of the Australian States and Territories and Australia: N.S.W. (New South Wales), Vic. (Victoria), Qld (Queensland), S.A. (South Australia), W.A. (Western Australia), Tas. (Tasmania), N.T. (Northern Territory), A.C.T. (Australian Capital Territory), Aust. (Australia).

In general, the *statistics in this volume relate to the States and Territories of Australia*, i.e. they exclude particulars of the External Territories of Australia, which, however, are specifically dealt with in Chapter 28, The Territories of Australia. A few series elsewhere include particulars of Papua New Guinea because of the nature of the subject-matter—these series are indicated.

Yearly periods shown as e.g. 1973 refer to the year ended 31 December 1973; those shown as e.g. 1972–73 refer to the year ended 30 June 1973. Other yearly periods are specifically indicated. The range of years shown in table headings, e.g. 1901 to 1972–73, indicates the period covered, but does not necessarily imply that each intervening year is included.

Values are shown in Australian dollars (\$) or (\$) or cents (c) unless another currency is specified.

Reference numbers. In the introductory paragraphs to most chapters a list of relevant publications is shown. In each case the reference number is shown in brackets and this should be quoted when ordering Bureau publications.

Any discrepancies between totals and sums of components in tables are due to rounding.

METRIC UNITS AND CONVERSION FACTORS

Quantity	Imperial unit	Metric unit	Conversion Factors	
			Imperial to Metric units	Metric to Imperial units
Length	inch (in)	millimetre (mm) or centimetre (cm)	1 in = 25.4 mm	1 cm = 0.394 in
	foot (ft)	centimetre (cm) or metre (m)	1 ft = 30.5 cm	1 m = 3.28 ft
	yard (yd)	metre (m)	1 yd = 0.914 m	1 m = 1.09 yd
	furlong (fur)	metre (m) or kilometre (km)	1 fur = 201 m	1 km = 4.97 fur
	mile	kilometre (km)	1 mile = 1.61 km	1 km = 0.621 mile
For navigation		international nautical mile (n mile)		1 n mile = 1852 m
Mass	ounce (oz)	gram (g)	1 oz = 28.3 g	1 g = 0.0353 oz
	pound (lb)	gram (g) or kilogram (kg)	1 lb = 454 g	1 kg = 2.20 lb
	stone	kilogram (kg)	1 stone = 6.35 kg	1 kg = 0.157 stone
	ton	tonne (t)	1 ton = 1.02 t	1 t = 0.984 ton
Area	square inch (in ²)	square centimetre (cm ²)	1 in ² = 6.45 cm ²	1 cm ² = 0.155 in ²
	square foot (ft ²)	square centimetre (cm ²) or square metre (m ²)	1 ft ² = 929 cm ²	1 m ² = 10.8 ft ²
	square yard (yd ²)	square metre (m ²)	1 yd ² = 0.836 m ²	1 m ² = 1.20 yd ²
	perch (p)	square metre (m ²)	1 p = 25.3 m ²	1 m ² = 0.0395 p
	rood (rd)	hectare (ha)	1 rd = 0.101 ha	1 ha = 9.88 rd
	acre (ac)	hectare (ha)	1 ac = 0.405 ha	1 ha = 2.47 ac
	square mile	square kilometre (km ²)	1 square mile = 2.59 km ²	1 km ² = 0.386 square mile
Volume	cubic inch (in ³)	cubic centimetre (cm ³)	1 in ³ = 16.4 cm ³	1 cm ³ = 0.0610 in ³
	cubic foot (ft ³)	cubic metre (m ³)	1 ft ³ = 0.0283 m ³	1 m ³ = 35.3 ft ³
	cubic yard (yd ³)	cubic metre (m ³)	1 yd ³ = 0.765 m ³	1 m ³ = 1.31 yd ³
	bushel (bus)	cubic metre (m ³)	1 bus = 0.0364 m ³	1 m ³ = 27.5 bus
	Volume (fluids)	fluid ounce (fl oz)	millilitre (ml)	1 fl oz = 28.4 ml	1 ml = 0.0352 fl oz
pint (pt)		millilitre (ml) or litre (l)	1 pt = 568 ml	1 litre = 1.76 pt
gallon (gal)		litre (l) or cubic metre (m ³)	1 gal = 4.55 litres	1 m ³ = 220 gal
acre foot		cubic metre (m ³) or megalitre (MI)	1 acre foot = 1230 m ³ = 1.23 MI	1 MI = 0.811 acre-foot
Force		pound-force (lbf)	newton (N)	1 lbf = 4.45 N	1 N = 0.225 lbf
	ton-force (tonf)	kilonewton (kN)	1 tonf = 9.96 kN	1 kN = 0.100 tonf
	Pressure	pound per square inch (psi)	kilopascal (kPa)	1 psi = 6.89 kPa	1 kPa = 0.145 psi
atmosphere (atm)		kilopascal (kPa) or megapascal (MPa)	1 atm = 101 kPa	1 MPa = 9.87 atm
ton per square inch (ton/in ²)		megapascal (MPa)	1 ton/in ² = 15.4 MPa	1 MPa = 0.0647 ton/in ²
For meteorology	inch of mercury (inHg)	millibar (mb)	1 inHg = 33.9 mb	1 mb = 0.0295 inHg 1 mb = 100 Pa
Speed For navigation	mile per hour (mph)	kilometre per hour (km/h)	1 mph = 1.61 km/h	1 km/h = 0.621 mph
		knot (kn)		1 kn = 1.85 km/h
Temperature	degree Fahrenheit (°F)	degree Celsius (°C)	$^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$	$^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$
Density	pound per cubic inch (lb/in ³)	gram per cubic centimetre (g/cm ³)	1 lb/in ³ = 27.7 g/cm ³	1 g/cm ³ = 0.0361 lb/in ³
		= tonne per cubic metre (t/m ³)	1 lb/in ³ = 27.7 t/m ³	1 t/m ³ = 0.0361 lb/in ³
	ton per cubic yard	tonne per cubic metre (t/m ³)	1 ton/yd ³ = 1.33 t/m ³	1 t/m ³ = 0.752 ton/yd ³
Energy	British thermal unit (Btu)	kilojoule (kJ)	1 Btu = 1.06 kJ	1 kJ = 0.948 Btu
	therm	megajoule (MJ)	1 therm = 106 MJ	1 MJ = 9.48 × 10 ⁻³ therm
For electrical energy		kilowatt hour (kWh)		1 kWh = 3.60 MJ
Power	horsepower (hp)	kilowatt (kW)	1 hp = 0.746 kW	1 kW = 1.34 hp
Time		second (s)		
		minute (min)		1 min = 60 s
		hour (h)		1 h = 3600 s
Frequency	cycle per second (c/s)	hertz (Hz)	1 c/s = 1 Hz	1 Hz = 1 c/s
Angular velocity	revolution per minute (rpm)	radian per second (rad/s)	1 rpm = 1.105 rad/s	1 rad/s = 9.55 rpm
		revolution per minute (rpm)		

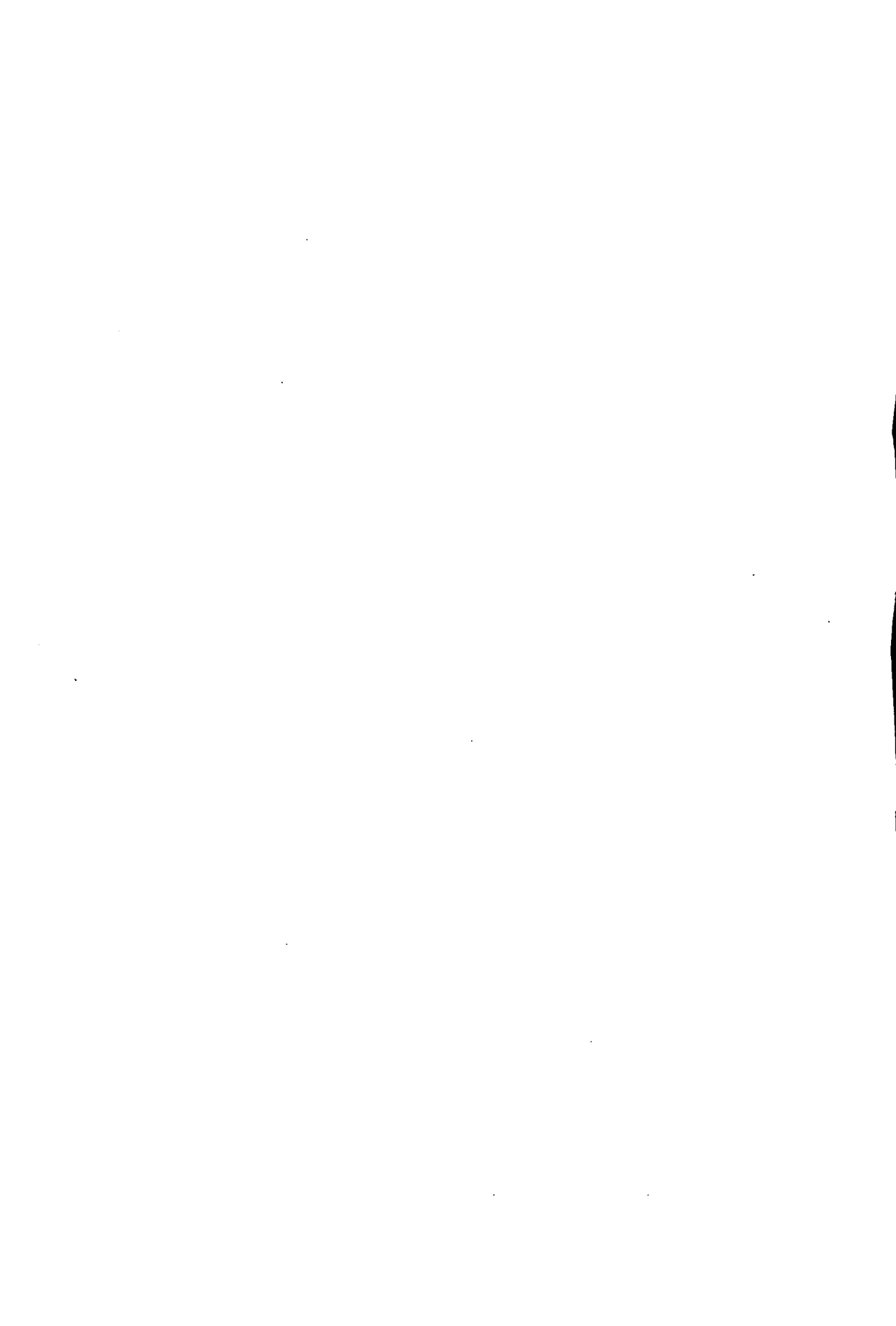
CORRIGENDUM

PAGE

483 Table **MOTOR VEHICLE THEFT, ETC.: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA**

*Motor vehicle
theft, etc
1972*

Numbers reported or
becoming known *for 42,924 read 45,924*



CHAPTER 1

DISCOVERY, COLONISATION AND FEDERATION OF AUSTRALIA

Early knowledge and discovery of Australia

The following paragraphs contain only a bare outline of the pre-history and of the more important facts relating to the early history of Australian discovery. A more detailed summary of the discovery of Australia may be found in Year Book No. 39 (*see* page 1) and earlier issues.

Pre-history

Man entered the Australian continent from the South-East Asian area during the last glaciation, some 30,000 years ago, when sea levels were lower than in recent times. Nevertheless these first migrations would have entailed sea voyages of at least some 60 kilometres. Settlement was well established at least 25,000 to 30,000 years ago, and by 20,000 years ago almost all the continent was inhabited.

The original Australians lived as hunters and gatherers, using tools of wood, bone and stone. The archaeological evidence indicates that originally there was a simple, pan-continental tool-making tradition characterised by stone core tools and scrapers used to make further tools of wood. This tradition persisted until 5,000 to 6,000 years ago, when a series of new influences became apparent. A range of more specialised and sophisticated small tools was added to the old technology. The dingo, the only animal domesticated by the Aborigines, also entered the continent at this time. These new influences never reached Tasmania, isolated for some 12,000 years by the post-glacial rising seas, where a few thousand Tasmanian Aborigines maintained the culture of the late Pleistocene period until the European settlement of the island.

The Aborigines probably achieved maximum exploitation of local resources within the limits of their technology. Population balance had apparently been attained long before European settlement, and anthropologists accept that there were at least some 250,000 to 300,000 Aborigines in Australia in 1788. They were divided into some 500 small groups, speaking a variety of languages and dialects. These 'tribes' were further divided into families or clusters of family groups; these 'bands' formed the basic self-sufficient economic unit, and ranged within territorial limits. Labour was divided between the sexes, the men hunting, while the women foraged for the roots, seeds and small animals which formed a basic part of their subsistence. When abundant food or water supplies were available, or when ceremonial obligations demanded, local groups would congregate; in leaner times they scattered. Ceremonial exchanges of goods at these gatherings led to their wide dispersal. Religious and ceremonial activities related to the land, were a vital part of Aboriginal life. There is evidence that they had developed the use of ochre as a ritual painting material as early as 25,000 years ago, while some form of ritual burial was also practised at this time.

The physical barriers of distance and aridity within Australia itself, were cause in part of the cultural isolation and linguistic diversity of its people. European exploration and settlement was for most Aboriginal societies their first contact with an outside culture. The impact of this settlement led rapidly to the disappearance of the traditional Aboriginal way of life in those areas where the colonists established themselves most successfully.

Terra Australis

Although references to an Austral land are found in the works of writers in the early centuries after Christ, and evidence appeared in maps, globes, and manuscripts from the Middle Ages onward, there is no definite evidence connecting this so-called *Terra Australis* with Australia. Cornelius Wytfliet's map of 1597, however, indicates roughly the eastern and western coasts of Australia, as well as the gulf of Carpentaria.

Early discoveries of Australia

The Portuguese may have discovered part of the Australian coast before 1542, and it has been suggested that the Arabs may have come to Australia even earlier, though there is no evidence to support this theory. For all practical purposes, however, the coastal exploration of Australia may be taken as having begun with the Spaniards and the Dutch.

In 1606 the Spaniard Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought he had discovered the great land of the south, and therefore named the group *La Australia del Spiritu Santo*. After leaving the New Hebrides Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian continent but no mention of it is made in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam, Java, to explore the island of New Guinea. During March 1606 the *Duyfken* coasted along the southern shores of New Guinea and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again).

During the following thirty years there were nine visits by Dutch navigators to Australian waters; by 1636, through their efforts, the coast of Australia from Cape York westward around to the Great Australian Bight had been discovered.

In 1642 Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage in 1644 Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far south as the tropic of Capricorn. This voyage of Tasman's may be said to have ended the period of Dutch discoveries, although there were subsequent visits by the Dutch to Australia (de Vlamingh in 1696 and Van Delft in 1705).

Discoveries by the English

In the meantime the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnets*, a trading vessel whose crew had turned buccaneers. In 1699 he again visited Australia; in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds, and reptiles observed, and of encounters with natives.

At the end of the seventeenth century it was uncertain whether Tasmania and New Zealand were parts of Australia or whether they were separated from it but themselves formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though undertaken primarily for the purpose of observing the transit of Venus from Tahiti, had also the objective of ascertaining whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, and accompanied by Sir Joseph Banks the botanist, Dr Solander the naturalist, Green the astronomer, draughtsmen, and servants, Cook, after observing the transit of Venus at Tahiti, turned towards New Zealand, sighting that land on 7 October 1769 in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown.

Discovery of Australia by Captain Cook

On 20 April 1770* Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, on 29 April 1770* he discovered Botany Bay, where he landed. Cook sailed along the coast in a northerly direction for nearly 2,100 kilometres until 11 June 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north sailing through Torres Strait and eventually anchoring in the Downs on 13 July 1771. In 1772 Cook was put in command of the ships *Resolution* and *Adventure* with a view to ascertaining whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14 February 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance, the existence of a channel between Tasmania and Australia, was made by Bass and Flinders in 1798.

* Year Book No. 1 shows the dates of these events as '19th April' and '28th April' respectively. In Year Book No. 2 they have been changed to '20th of April' and '29th April', and the following footnote inserted:

1. *Correct dates of Captain Cook's Log.* About the 180° meridian of longitude had been passed, and owing to no allowance having been made for westing, the various log-books of this voyage are in error one day as to dates. Thus those in Captain Cook's private log in his official log, in Gunner Forwood's, Pickergill's, Clerke's, Wilkinson's, and Bootie's Journals, in the Pallister copy of Cook's log, and in Wharton's publication, all need correction by adding one day to the date given: that is, the 19th should read the 20th, etc. The anonymous log, doubtless Green's, is erroneously supposed by the author of the "Historical Records of New South Wales," to have been corrected for westing, see the footnote on page 269 therein. The facts are as follows:—What was known as "*ship time*" began a day earlier than under the present system of astronomical reckoning, that is to say, Jan. 1 began at noon Dec. 31. The "*Astronomical day*," however, was a whole day later than the *ship's day*: thus what would be assigned to the 24th in Cook's Journal would appear in Green's Journal as the 23rd. (See "*Captain Cook's Journal*," 1768-71, by Captain W. J. L. Wharton, R.N., F.R.S., London, 1893, preface pp. xii., xliii.). There can be no doubt as to the need of the correction in the dates, since on reaching Batavia the log reads:—"Wednesday 10th, according to our reckoning, but by the people here Thursday 11th." (Op. Cit., pp. 352-3.) Attention was drawn to this matter by Mr. P. de Jersey Grut in the "*Argus*," Melbourne, May 15, 18 and 22, 1907.

The annexation of Australia

Possession taken of eastern coast of Australia by Captain Cook

Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 22 August 1770† that the history of Australia was brought into definite political connection with western civilisation. It was on that date that Captain Cook took possession 'of the whole eastern coast, from latitude 38° S. to this place, latitude 10½° S. in right of His Majesty King George the Third', i.e. over only what are now the eastern parts of New South Wales, Victoria and Queensland.

Annexation of eastern part of Australian continent and Tasmania

Formal possession on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26 January 1788, when Captain Phillip's Commission, first issued to him on 12 October 1786 and amplified on 2 April 1787, was read to the people whom he had brought with him in the 'First Fleet'. The commission appointed Phillip 'Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south'.

Extension of New South Wales westward

On 17 February 1824 Earl Bathurst notified Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20 September 1824 of the coast from the 135th to the 129th degree of east longitude. On 16 July 1825 the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales.

Annexation of Western Australia

An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George Sound, sailed from Sydney on 9 November 1826, landed at the Sound on 26 December following, and on 21 January 1827 hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17 January 1827, and on his return in the following April submitted a glowing report on what he described as a 'rich and romantic country', urging its occupation for the purpose of settlement. He left for England in July 1827, continuing his advocacy, notwithstanding much discouragement, with unabated enthusiasm. He was at last successful, the result being due mainly to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June 1829. On the second of the preceding month Captain Fremantle, in command of H.M.S. *Challenger*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of 'all that part of New Holland which is not included within the Territory of New South Wales'. Thus before the middle of 1829 the whole territory now known as Australia had been constituted a dependency of the United Kingdom.

The creation of the several Colonies

New South Wales

In Governor Phillip's commission of 1786 the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not until 1798 that the contrary was known. In that year Bass and Flinders proved that it was an island by sailing through Bass Strait. The territory of New South Wales, as originally constituted (3,834,565 square kilometres, including Van Diemen's Land 67,897 square kilometres), and of New Zealand (269,000 square

† In all issues up to Year Book No. 56 this date was incorrectly shown as 23 August 1770.

kilometres), which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 4,103,568 square kilometres. A further area of 1,341,971 square kilometres was added in 1825 when the western boundary was extended to 129th east meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 803,863 square kilometres. Following the transfer of the Australian Capital Territory and an area at Jervis Bay to the Commonwealth in 1911 and 1915 respectively the area was further reduced to 801,431 square kilometres.

Lord Howe Island, which is a dependency of New South Wales, and for political purposes is included in one of the electorates of Sydney, is situated in latitude 31° 32' south, longitude 159° 05' east, about 800 kilometres east-north-east of Sydney, and has an area of 1,625 hectares.

Tasmania

Van Dieman's Land, first settled in 1803, was politically separated from New South Wales in 1825 being constituted a separate colony on 14 June. The area of the colony was 67,897 square kilometres. The name of the colony was officially changed to Tasmania in 1856 when responsible government was established. Following a resurvey of local government areas, the area of Tasmania was determined at 68,332 square kilometres at the end of 1964.

Macquarie Island, about 1,550 kilometres south-east of Hobart, together with a few rocky islets nearby, has been a part of Tasmania since the nineteenth century. In December 1911 five members of the Australiasian Antarctic Expedition landed on the island and remained there until 1915. On 3 March 1948 another party was landed to man a new station which has been since maintained as a scientific base. The island is about 33 kilometres long and 6 kilometres wide.

Western Australia

The territory westward of the 129th meridian, comprising 2,527,633 square kilometres was constituted a colony under the name of Western Australia in June 1829. It was always distinct and independent of New South Wales, except for the settlement on King George Sound (*see* page 3), which remained under the jurisdiction of New South Wales until 1831.

South Australia

On 15 August 1834 the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a 'province', and settlement took place towards the end of the year 1836. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28 December 1836, and on the same day the new colony was officially proclaimed. The new colony embraced 802,512 square kilometres of territory, lying south of the 26th parallel of south latitude and between the 141st* and 132nd meridians of east longitude. On 10 December 1861, by authority of the Imperial Act 24 and 25 Vict., cap. 44, the western boundary of South Australia was extended to coincide with the eastern boundary of Western Australia, namely, the 129th east meridian. The area of the extension was approximately 181,870 square kilometres. Nearly two years later on 6 July 1863, the Northern Territory, comprising 1,356,176 square kilometres, was brought under the jurisdiction of South Australia, which thereupon controlled an area of 2,340,557 square kilometres. The Territory was transferred to the Commonwealth on 1 January 1911 (*see* page 5). Following a resurvey of Northern Territory notified in 1964 the area was reduced by 8,651 square kilometres.

New Zealand

Although Captain Cook had taken possession of the North Island of New Zealand in November 1769, and of the South Island in January 1770, it is doubtful whether at the time when Captain Phillip's commission was drawn up New Zealand was considered as one of the 'islands adjacent in the Pacific Ocean' (*see* page 3). The fact that under the Supreme Court Act (Imperial) of 1823 British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, and that in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, leaves this an open question, as nothing more than extra-territorial jurisdiction may have been intended. New Zealand does not appear to have become British territory unequivocally until 1840, when Captain Hobson arrived at the Bay of Islands, and on 30 January read his commissions, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. In February 1840 the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21 May 1840 British sovereignty over the islands of New Zealand was explicitly proclaimed. New Zealand remained a dependency of New South Wales until, by letters patent of 16 November 1840, it was constituted a separate colony under the powers of the Act 3 and 4 Vict., cap. 62, of 7 August 1840. Proclamation of the separation was made on 3 May 1841. The area of the colony was 269,000 square kilometres. The present area of New Zealand, which acquired responsible government on 7 May 1856 and Dominion status on 26 September 1907, exclusive of island territories but including minor islands, is 268,667 square kilometres.

* The actual surveyed boundary between South Australia and Victoria is at 140° 58' east longitude.

Victoria

In 1851 the 'Port Phillip District' of New South Wales was constituted the colony of Victoria, 'bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia'. The area of the new colony was 227,620 square kilometres, and its separate existence took effect from 1 July 1851.

Queensland

The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt, and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony under the name of Queensland by letters patent dated 6 June 1859, although separation from New South Wales was not completed until 10 December of the same year. The territory comprised by the new colony was 'so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8' south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of South latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean'. The area of the colony thus constituted was 1,435,637 square kilometres. By letters patent dated 13 March 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12 April 1862 the area of Queensland was increased by the annexation of 'so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between 141st and 138th meridians of east longitude, together with all the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria'. With this addition the area of Queensland became 1,736,595 square kilometres. Following a thorough revision of the area of each local government area of Queensland, based on the most recent maps available, the Surveyor-General in 1958 determined the area of Queensland as 1,727,530 square kilometres—a reduction of 9,065 square kilometres from the area previously determined.

The establishment of the Commonwealth of Australia**Federation**

On 1 January 1901 the colonies mentioned, with the exception of New Zealand, were federated under the name of the 'Commonwealth of Australia', the designation of 'Colonies'—except in the case of the Northern Territory, to which the designation 'Territory' applied—being at the same time changed to that of 'States'.

Transfer of the Northern Territory to the Commonwealth

On 7 December 1907 the Commonwealth and the State of South Australia entered into an agreement for the transfer of the Northern Territory to the Commonwealth, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under The Northern Territory Surrender Act, 1907 and by the Commonwealth Parliament under the *Northern Territory Acceptance Act* 1910. The Territory was formally transferred to the Commonwealth on 1 January 1911, and became the Northern Territory of Australia.

By Imperial Order in Council dated 23 July 1931 Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth on 10 May 1934, in the *Ashmore and Cartier Islands Acceptance Act* 1933, under the name of the Territory of Ashmore and Cartier Islands. The Act authorised the Governor of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July 1938 annexed the islands to the Northern Territory, whose laws, ordinances, and regulations, wherever applicable, thereupon applied.

The area of Ashmore Reef is approximately 150 square kilometres (to the limit of the reef), and it is situated 350 kilometres off the western coast of Australia and 850 kilometres west of Darwin. Cartier Island is approximately 9 square kilometres in area (to the limit of the reef), and is situated 290 kilometres off the western coast of Australia and 790 kilometres west of Darwin.

Transfer of the Australian Capital Territory to the Commonwealth

On 18 October 1909 the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 2,359 square kilometres as the Seat of Government of the Commonwealth. In December 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5 December 1910 a proclamation was issued vesting the territory in the Commonwealth on and from 1 January 1911. By the *Jervis Bay Territory Acceptance Act* 1915 an area of 73 square kilometres at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4 September 1915.

Present composition of Australia

In 1973 the total area of Australia and of the individual States and Territories was determined by the Division of National Mapping as 7,682,300 square kilometres. (*For a description of the method used in calculation of the areas see Chapter 2, page 26*). The years in which the respective areas were annexed, the years of first permanent settlement, and the years in which responsible government was granted to the Colonies, and the present areas of the several States and Territories and of Australia are shown below.

AUSTRALIA: COMPONENT STATES AND TERRITORIES

<i>State or Territory</i>	<i>Year of annexation</i>	<i>Year of first permanent settlement</i>	<i>Year of formation into separate Colony or Territory</i>	<i>Year in which responsible government was granted</i>	<i>Present area in km²</i>
New South Wales	1770	1788	1786	1855	801,600
Victoria	1770	1834	1851	1855	227,600
Queensland	1770	1824	1859	(a)1859	1,727,200
South Australia	1788	1836	1834	1856	984,000
Western Australia	1829	1829	1829	1890	2,525,500
Tasmania	1788	1803	1825	1855	67,800
Northern Territory . . . . .	..	..	(b)1863	..	1,346,200
Australian Capital Territory . . . . .	..	..	(c)1911	..	2,400
Australia . . . . .	..	..	..	(d)	7,682,300

(a) As part of New South Wales in 1855; as a separate colony in 1859. (b) Previously part of New South Wales then brought under the jurisdiction of South Australia in 1863—transferred to the Commonwealth in 1911. (c) Previously part of New South Wales. (d) Constituted as from 1 January 1901.

The Constitution of the Commonwealth of Australia

Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the federal movement in Australia, was embodied in this chapter in issues of the Year Book up to and including No. 22.

Commonwealth Constitution Act

The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: 'An Act to constitute the Commonwealth of Australia', as amended by the *Constitution Alteration (Senate Elections)* 1906, the *Constitution Alteration (State Debts)* 1909, the *Constitution Alteration (State Debts)* 1928, the *Constitution Alteration (Social Services)* 1946, and the *Constitution Alteration (Aboriginals)* 1967, is given *in extenso* hereunder, and the text contains all the alterations of the Constitution which have been made up to and including 31 December 1973.

**THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT.
63 & 64 VICT., CHAPTER 12.**

An Act to Constitute the Commonwealth of Australia. (9th July, 1900.)

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.

2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.

3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.

4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.

5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State: and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.

6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.

"The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called "a State."

"Original States" shall mean such States as are parts of the Commonwealth at its establishment.

7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.

Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.

8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.

9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

- Chapter I.—The Parliament:
 - Part I.—General:
 - Part II.—The Senate:
 - Part III.—The House of Representatives:
 - Part IV.—Both Houses of the Parliament:
 - Part V.—Powers of the Parliament:
- Chapter II.—The Executive Government:
- Chapter III.—The Judicature:
- Chapter IV.—Finance and Trade:
- Chapter V.—The States:
- Chapter VI.—New States:
- Chapter VII.—Miscellaneous:
- Chapter VIII.—Alteration of the Constitution.
- The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament", or "The Parliament of the Commonwealth".

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise, prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State.* The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each elector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws determining the times and places of elections of senators for the State.

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in numbers as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years*,† and the places of those of the second class at the expiration of [the sixth year] *six years*,† from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

* The Parliament has otherwise provided, by means of the *Representation Act 1948*, that the number of senators shall be ten for each State from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18 May 1948).

† As amended by Section 2 of the *Constitution Alteration (Senate Elections) 1906*. The words in square brackets have been repealed; amendments are shown in italics.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the House of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth, the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

22. Until the Parliament otherwise provides, the presence of at least one third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

* As amended by Section 2 of the *Constitution Alteration (Senate Elections)* 1906. The words in square brackets have been repealed; amendments are shown in italics.

But notwithstanding anything in this section, five members at least shall be chosen in each Original State.

25. For the purpose of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales	twenty-three;	South Australia	six;
Victoria	twenty;	Tasmania	five;
Queensland	eight;		
Provided that if Western Australia is an Original State, the numbers shall be as follows:—			
New South Wales	twenty-six;	South Australia	seven;
Victoria	twenty-three;	Western Australia	five;
Queensland	nine;	Tasmania	five.

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

- (i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen:
- (ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.†

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

* The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act 1918-1973*, Sections 39 and 39A (repealing an earlier provision made by the *Commonwealth Franchise Act 1902*). For present qualifications see Chapter 3, General Government.

† The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act 1918-1973*, Section 69. For present qualifications see Chapter 3, General Government.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State, shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath of affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or
- (iii) Is an undischarged bankrupt or insolvent: or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section (iv) does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section: or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

* The Parliamentary allowance has been varied from time to time. For current allowances, see Chapter 3, General Government.

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld;
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.*

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:—

- (i) Trade and commerce with other countries, and among the States:
- (ii) Taxation; but so as not to discriminate between States or parts of States:
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth:
- (iv) Borrowing money on the public credit of the Commonwealth:
- (v) Postal, telegraphic, telephonic, and other like services:
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth:
- (vii) Lighthouses, lightships, beacons and buoys:
- (viii) Astronomical and meteorological observations:
- (ix) Quarantine:
- (x) Fisheries in Australian waters beyond territorial limits:
- (xi) Census and statistics:
- (xii) Currency, coinage, and legal tender:
- (xiii) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money:
- (xiv) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned.
- (xv) Weights and measures:
- (xvi) Bills of exchange and promissory notes:
- (xvii) Bankruptcy and insolvency:
- (xviii) Copyrights, patents of inventions and designs, and trade marks:
- (xix) Naturalization and aliens:
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth:
- (xxi) Marriage:
- (xxii) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants:
- (xxiii) Invalid and old-age pensions:
- (xxiiiA) †*The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:*
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:
- (xxvi) The people of any race [other than the aboriginal race in any State]‡ for whom it is deemed necessary to make special laws:

* Particulars of proposed laws which were submitted to referendums are referred to in Chapter 3, General Government, of this Year Book.

† Under Section 2 of the *Constitution Alteration (Social Services) 1946*, the Constitution was amended by the insertion of this paragraph.

‡ Under Section 2 of the *Constitution Alteration (Aboriginals) 1967*, the words in square brackets were omitted.

- (xxvii) Immigration and emigration:
- (xxviii) The influx of criminals:
 - (xxix) External affairs:
 - (xxx) The relations of the Commonwealth with the islands of the Pacific.
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:
- (xxxiv) Railway construction and extension in any State with the consent of that State:
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:
- (xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:
- (xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of the members of the Senate and House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which, until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

* The number of Ministers of State and the annual appropriation for their salaries have been varied from time to time. For current particulars, see Chapter 3, General Government.

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:	Lighthouses, lightships, beacons and buoys:
Naval and military defence:	Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.*

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council;
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity;
- (iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.†

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court;
 - (ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council;
 - (iii) Of the Inter-State Commission, but as to questions of law only:
- and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits inter se of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits inter se of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

* The *Judiciary Act* 1903 provided for a Chief Justice and two other Justices, increased by subsequent amendments to six.
 † The *Judiciary Act* 1903 provided for the payment of a salary of £3,500 (\$7,000) a year to the Chief Justice and of £3,000 (\$6,000) a year to each other Justice. These amounts have been varied from time to time.

75. In all matters—

- (i) Arising under any treaty:
- (ii) Affecting consuls or other representatives of other countries:
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:
- (iv) Between States, or between residents of different States, or between a State and a resident of another State:
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation:
- (ii) Arising under any laws made by the Parliament:
- (iii) Of Admiralty and maritime jurisdiction:
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court:
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof

to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise bounties, for such time only as the Governor-General in Council may declare to be necessary:
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth:
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament:
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
 - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;
 - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:
- (ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned wherever the Colony, or the Government or an officer of the Colony is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation or trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard

being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The Members of the Inter-State Commission—

- (i) Shall be appointed by the Governor-General in Council:
- (ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity:
- (iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.†(1) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

- (a) *the taking over of such debts by the Commonwealth;*
- (b) *the management of such debts;*
- (c) *the payment of interest and the provision and management of sinking funds in respect of such debts;*
- (d) *the consolidation, renewal, conversion, and redemption of such debts;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(2) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(3) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(4) *Any such agreement may be varied or rescinded by the parties thereto.*

(5) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(6) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be.

* Under Section 2 of the *Constitution Alteration (State Debts) 1909*, the words in square brackets were omitted.

† Under Section 2 of the *Constitution Alteration (State Debts) 1928*, the Constitution was amended by the insertion of this section.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State; and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

*[127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.]

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD!

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE. *The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

* Under Section 3 of the *Constitution Alteration (Aboriginals) 1967* the section in square brackets was repealed.

The Royal Proclamation

The preceding Act received the Royal assent on 9 July 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on 17 September 1900, constituted the Commonwealth as from 1 January 1901; it read as follows.

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland* and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, *Tasmania*, and *Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

The External Territories of Australia**Norfolk Island**

In 1856 Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later, in 1896, it was made a dependency under the Governor of that colony, and finally by the passage of the *Norfolk Island Act* 1913 it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29° 03' S., longitude 167° 57' E., and comprises an area approximately 36 square kilometres.

Australian Antarctic Territory

In Imperial Order in Council of 7 February 1933 placed under Australian authority "all the islands and territories other than Adelie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude'.

The Order came into force with a proclamation issued by the Governor-General on 24 August 1936, after the passing of the *Australian Antarctic Territory Acceptance Act* 1933 by the Commonwealth Parliament. The boundaries of Adelie Land were definitely fixed by a French Decree of 1 April 1938 as latitude 60° S., longitude 136° E., and longitude 142° E.

Heard and McDonald Islands

Heard and McDonald Islands, about 4,100 kilometres south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26 December 1947. Heard Island is approximately 43 kilometres long and 20 kilometres wide, and McDonald Islands about 43 kilometres to the west of Heard Island, are small, rocky and precipitous.

Cocos [Keeling] Islands

The Cocos (Keeling) Islands Act 1955 provided for the acceptance of the Cocos Islands, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. Consequent on the passing of these Acts, Her Majesty, by Order in Council, specified 23 November 1955 as the date of transfer. From that date the islands came under Australian administration and an Official Representative of Australia was appointed to take charge of the local administration of the islands. Their area is about 14 square kilometres, and they are situated in the Indian Ocean in latitude 12° 05' S. and longitude 96° 53' E.

Christmas Island

The *Christmas Island Act* 1958 provided for the acceptance of Christmas Island, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1 October 1958, and an Official Representative was appointed to administer the Territory. The area of the island is about 140 square kilometres and it is situated in the Indian Ocean in latitude 10° 25' S. and longitude 105° 40' E.

Coral Sea Islands

The Coral Sea Islands were declared to be a Territory of the Commonwealth by the *Coral Sea Islands Act* 1969. The scattered reefs and islands, often little more than sandbanks, spread over a sea area of over 1 million square kilometres with only a few square kilometres of actual land area, between the Great Barrier Reef and longitude 157° 10' E.

Papua

Under the administration of the Australian Government, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1 September 1906, under the authority of the *Papua Act* 1905. The area of Papua is about 221,300 square kilometres.

Trust Territory of New Guinea

In 1919 it was agreed by the Principal Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159° 25' E. The mandate was issued by the League of Nations on 17 December 1920. The Governor-General of the Commonwealth was authorised to accept the mandate by the *New Guinea Act* 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The land area comprises about 237,000 square kilometres, and the administration under the mandate dated from 9 May 1921. New Guinea is now administered under a Trusteeship Agreement with the United Nations, approved on 13 December 1946.

CHAPTER 2

CLIMATE AND PHYSICAL GEOGRAPHY OF AUSTRALIA

General description of Australia

This chapter has been prepared by the Bureau of Meteorology, Department of Science. It is mainly concerned with the climate of Australia, although some geographic comparisons and a summary of landform features influencing climate have been included together with a summary of atmospheric climatic controls.

The climate of Australia is predominantly continental but the insular nature of the land mass is significant in producing modification of the continental pattern.

The island continent of Australia is relatively dry with 50 per cent of the area having a median rainfall of less than 300 millimetres per year and 80 per cent less than 600 millimetres. Extreme minimum temperatures are not as low as those recorded in other continents because of the absence of extensive mountain masses and because of the expanse of ocean to the south. However, extreme maxima are comparatively high, reaching 50°C over the inland, mainly due to the great east-west extent of the continent in the vicinity of the Tropic of Capricorn.

Climatic discomfort, particularly heat discomfort, is significant over most of Australia. During summer, prolonged high temperatures and humidity around the northern coasts and high temperatures over the inland cause physical discomfort. In winter, low temperatures and strong cold winds over the interior and southern areas can be severe for relatively short periods.

Position and area

Position. Australia, including Tasmania, comprises a land area of 7,682,300 square kilometres. The land lies between latitudes 10° 41' S (Cape York) and 43° 39' S (South East Cape, Tasmania) and between longitudes 113° 09' E (Steep Point) and 153° 39' E (Cape Byron). The most southerly point on the mainland is South Point (Wilson's Promontory) 39° 08' S. The latitudinal distance between Cape York and South Point, Wilson's Promontory (South East Cape, Tasmania) is about 3,180 kilometres (3,680 kilometres) respectively and the longitudinal distance between Steep Point and Cape Byron is about 4,000 kilometres.

Area of Australia compared with areas of other countries. The area of Australia is almost as great as that of the United States of America excluding Alaska, about 50 per cent greater than Europe (excluding U.S.S.R.) and 32 times greater than the United Kingdom. The following table shows the area of Australia in relation to areas of other continents and countries.

AREAS OF CONTINENTS AND COUNTRIES, *circa* 1970
(^{'000} square kilometres)

Country	Area	Country	Area
Continental divisions—		Europe(a)—	
Europe(a)	4,936	France	547
Asia(a)	27,532	Spain (including possessions)	505
U.S.S.R. (Europe and Asia)	22,402	Sweden	450
Africa	30,319	Finland	337
North and Central America and West Indies	24,247	Norway	324
South America	17,834	Poland	313
Oceania	8,504	Italy	301
		Yugoslavia	256
		Germany, Federal Republic of	248
		United Kingdom	244
		Romania	237
		Other	1,189
Total, World excluding Arctic and Antarctic continents	135,771		

(a) Excludes U.S.S.R., shown below.

AREAS OF CONTINENTS AND COUNTRIES, *circa 1970—continued*
(⁰⁰⁰ square kilometres)

Country	Area	Country	Area
Asia(a)—		Africa— <i>continued</i>	
China, Peoples Republic of	9,561	Somalia	638
India	3,268	Central African Republic	623
Saudi Arabia	2,150	Madagascar	587
Iran	1,648	Kenya	583
Mongolia	1,565	Other	4,812
Indonesia	1,492		
Pakistan	947	North and Central America—	
Turkey	781	Canada	9,976
Burma	678	United States of America(b)	9,363
Afghanistan	647	Greenland	2,176
Thailand	514	Mexico	1,973
Iraq	435	Nicaragua	130
Other	4,058	Cuba	115
		Honduras	112
U.S.S.R.	22,402	Other	401
Africa—		South America—	
Sudan	2,506	Brazil	8,512
Algeria	2,382	Argentina	2,777
Congo, People's Republic of the	342	Peru	1,285
Zaire	2,345	Colombia (excluding Panama)	1,134
Libya	1,760	Bolivia	1,099
Chad	1,284	Venezuela	912
Niger	1,267	Chile	757
Angola	1,247	Paraguay	407
South Africa, Republic of	1,221	Ecuador	284
Mali	1,240	Other	653
Ethiopia	1,222		
Mauritania	1,031	Oceania—	
United Arab Republic	1,001	Australia	7,682
Tanzania, United Republic of	945	New Zealand	269
Nigeria	924	Papua New Guinea(c)	462
South-West Africa	824	Other	91
Mozambique	783		
Zambia	752		

(a) Excludes U.S.S.R., shown below.

(b) Includes Hawaii.

(c) West Irian is included in Other Asia.

Area, coastline, tropical and temperate zones, and standard times. The areas of the States and Territories and the length of the coastline were determined in 1973, by the Division of National Mapping, Department of Minerals and Energy, by manually digitising these features from the 1:250,000 map series of Australia. This means that only features of measurable size at this scale were considered. About 60,000 points were digitised at an approximate spacing of 0.5 kilometres. These points were joined by chords as the basis for calculation of areas and coastline lengths by computer.

The approximate high water mark coastline was digitised and included all bays, ports and estuaries which are open to the sea. In these cases, the shoreline was assumed to be where the seaward boundary of the title of ownership would be. In mangroves, the shoreline was assumed to be on the landward side. Rivers were considered in a similar manner but the decisions were rather more subjective, the line being across the river where it appeared to take its true form.

**AREA, COASTLINE, TROPICAL AND TEMPERATE ZONES, AND STANDARD
TIMES: AUSTRALIA**

NOTE. See paragraphs page 26 for methods of estimating area and coastline.

State or Territory	Estimated area		Length of coastline	Percentage of total area in		Standard time	
	Total	Percentage of total area		Tropical zone	Tem- perate zone	Meridian	Ahead of selected G.M.T.
	km ²		km				hours
New South Wales	801,600	10.43	1,900	..	100	150°E	10.0
Victoria	227,600	2.96	1,800	..	100	150°E	10.0
Queensland	1,727,200	22.48	7,400	54	46	150°E	10.0
South Australia	984,000	12.81	3,700	..	100	142°30'E	9.5
Western Australia	2,525,500	32.87	12,500	37	63	120°E	8.0
Tasmania	67,800	0.88	3,200	..	100	150°E	10.0
Northern Territory	1,346,200	17.52	6,200	81	19	142°30'E	9.5
Australian Capital Territory	2,400	0.03	35	..	100	150°E	10.0
Australia	7,682,300	100.00	36,735	39	61	..	..

Landforms

The average altitude of the surface of the Australian land mass is only about 300 metres. Approximately 87 per cent of the total land mass is less than 500 metres and 99.5 per cent is less than 1,000 metres. The highest point is Mount Kosciusko (2,228 metres) and the lowest point is Lake Eyre (-15 metres).

Australia has three major landform features: the western plateau, the interior lowlands and the eastern uplands. The western half of the continent consists mainly of a great plateau of altitude 300 to 600 metres. The interior lowlands include the channel country of southwest Queensland (drainage to Lake Eyre) and the Murray-Darling system to the south. The eastern uplands consist of a broad belt of varied width extending from north Queensland to Tasmania and consisting largely of tablelands, ranges and ridges with only limited mountain areas above 1,000 metres.

The rivers of Australia may be divided into two major classes, those of the coastal plains with moderate rates of fall and those of the central plains with very slight fall. Of the rivers of the northern part of the east coast, the longest are the Burdekin and the Fitzroy in Queensland. The Hunter is the largest coastal river of New South Wales, and the Murray River, with its great tributary the Darling, drains part of Queensland, the major part of New South Wales, and a large part of Victoria, finally flowing into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The total length of the Murray is about 2,520 kilometres, about 650 being in South Australia and about 1,870 kilometres from South Australia to the source. The Darling from its junction with the Murray to its junction with the Culgoa is 1,390 kilometres. The Upper Darling (1,140 kilometres) incorporates the Barwon which commences at the junction of the Culgoa to its junction with the Weir River and the Macintyre River from its junction with the Weir to its source near Maybole. The rivers of the north-west coast of Australia (Western Australia), e.g. the Murchison, Gascoyne, Ashburton, Fortescue, De Grey, Fitzroy, Drysdale, and Ord are of considerable size. So also are those in the Northern Territory, e.g. the Victoria and Daly, and those on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert, and Mitchell. The rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the country.

The 'lakes' of Australia may be divided into three classes: true permanent lakes; lakes which, being very shallow, become mere morasses in dry seasons or even dry up, and finally present a cracked surface of salt and dry mud; and lakes which are really inlets of the ocean, opening out into a lake-like expanse. The second class, which are a characteristic of the interior lowlands are of considerable extent. The largest are Lake Eyre 9,500 square kilometres, Lake Torrens 5,900 square kilometres and Lake Gairdner 4,300 square kilometres.

For further information on the landforms and the geographical features of Australia earlier issues of the Year Book should be consulted. The list of special articles, etc., at the end of this volume indicates the nature of the information available and its position in the various issues.

Climate of Australia

Climatic controls

The generally low relief of Australia causes little obstruction to the atmospheric systems which control the climate. A notable exception is the eastern uplands which interrupt the flow in the lower levels of the atmosphere.

In the winter half of the year (May–October) anticyclones, or high pressure systems, pass from west to east across the continent and often remain almost stationary over the interior for several days. These anticyclones may extend to 4,000 kilometres along their west-east axes. Northern Australia is then influenced by mild dry south-east trade winds and southern Australia experiences cool moist westerly winds. The westerlies and the frontal systems associated with extensive depressions travelling over the Southern Ocean have a controlling influence on the climate of southern Australia during the winter season, causing rainy periods. Cold outbreaks, particularly in south-east Australia, occur when cold air of Southern Ocean origin is directed northwards by intense depressions having diameters up to 2,000 kilometres. Cold fronts associated with the southern depressions, or with secondary depressions over the Tasman Sea, may produce large day-to-day changes in temperature in southern areas, particularly in south-eastern coastal regions.

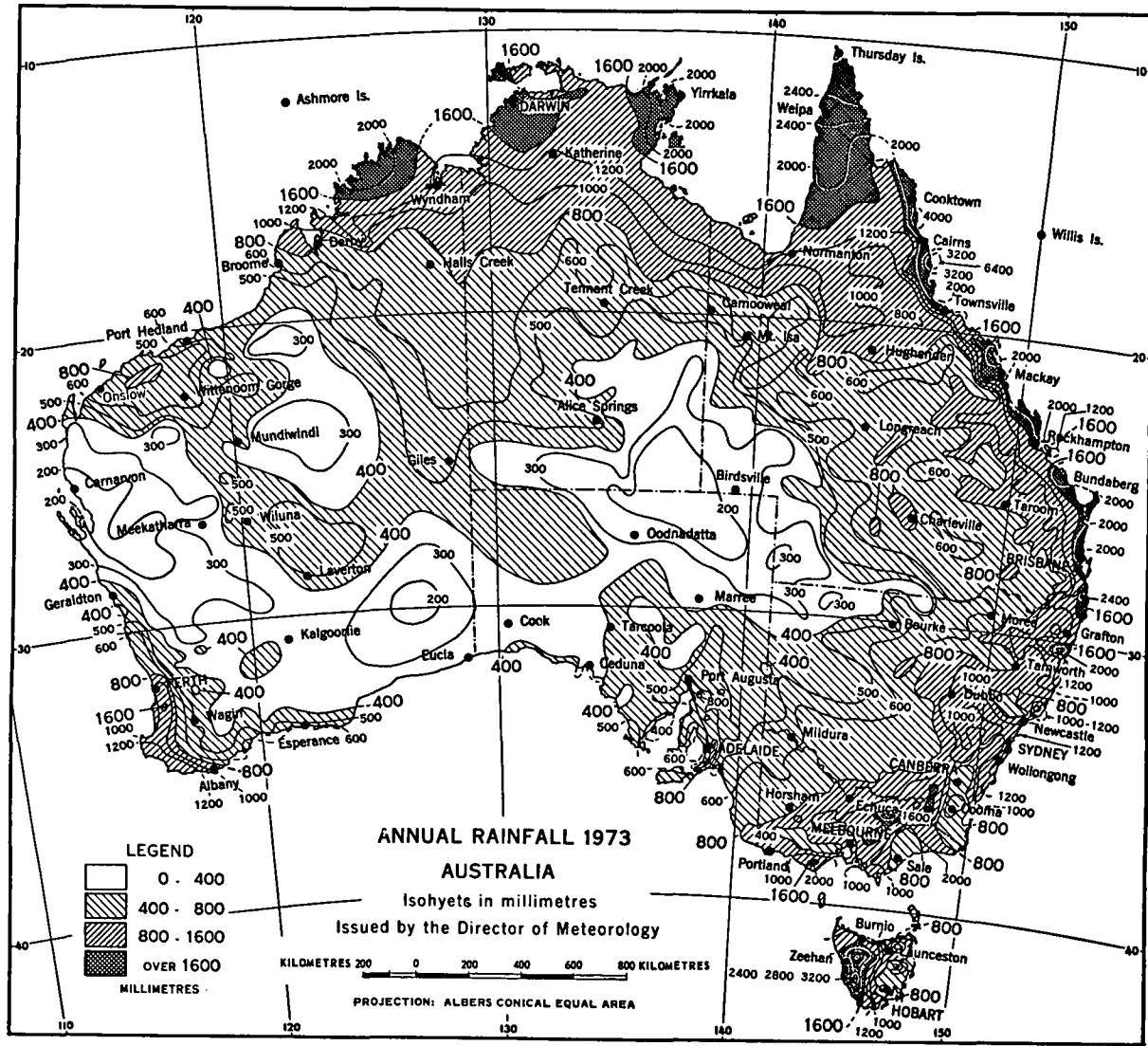
In the summer half of the year (November–April) the anticyclones travel from west to east on a more southerly track across the southern fringes of Australia directing easterly winds generally over the continent. Fine warmer weather predominates in southern Australia with the passage of each anticyclone. Heat waves occur when there is an interruption to the eastward progression of the anticyclone (*blocking*) and winds back northerly and later north-westerly. Northern Australia comes under the influence of summer disturbances associated with the southward intrusion of warm moist monsoonal air from north of the inter-tropic convergence zone, resulting in a hot rainy season.

Tropical cyclones develop over the seas to the north-west and the north-east of Australia in summer between November and April. Their frequency of occurrence and the tracks they follow vary greatly from season to season. On the average about three Coral Sea cyclones per season directly affect the Queensland coast; and about two Indian Ocean cyclones affect the north-western coast. Tropical cyclones approaching the coast usually produce very heavy rain in coastal areas. Some cyclones move inland, losing intensity but still producing widespread heavy rainfall. Individual cyclonic systems may control the weather over northern Australia for periods extending to three weeks.

Rainfall

Annual. The rainfall for the year 1973 is shown in plate 2, page 29. The annual 10, 50 and 90 percentile* rainfalls are shown in plates 3–5 respectively. The area of lowest rainfall is east of Lake Eyre in South Australia, where the median (50 percentile) rainfall is only about 100 millimetres. Murnpeowie with 70 years of record, has a median annual rainfall of 101 millimetres. Another very low rainfall area is in Western Australia in the Giles–Warburton Range region, which has a median annual rainfall of about 150 millimetres. A vast region extending from the west coast near Shark Bay across the interior of Western Australia and South Australia to south-west Queensland and north-west New South Wales has a median annual rainfall of less than 200 millimetres. This region is not normally exposed to moist air masses for extended periods and rainfall is irregular, averaging only one or two days per month. However, in favourable synoptic situations, which infrequently occur over extensive parts of the region, up to 400 millimetres of rain may fall within a few days resulting in widespread flooding.

* The amounts that are not exceeded by 10, 50 and 90 per cent of all recordings are the 10, 50 and 90 percentiles or the first, fifth and ninth deciles respectively. The 50 percentile is usually called the median.



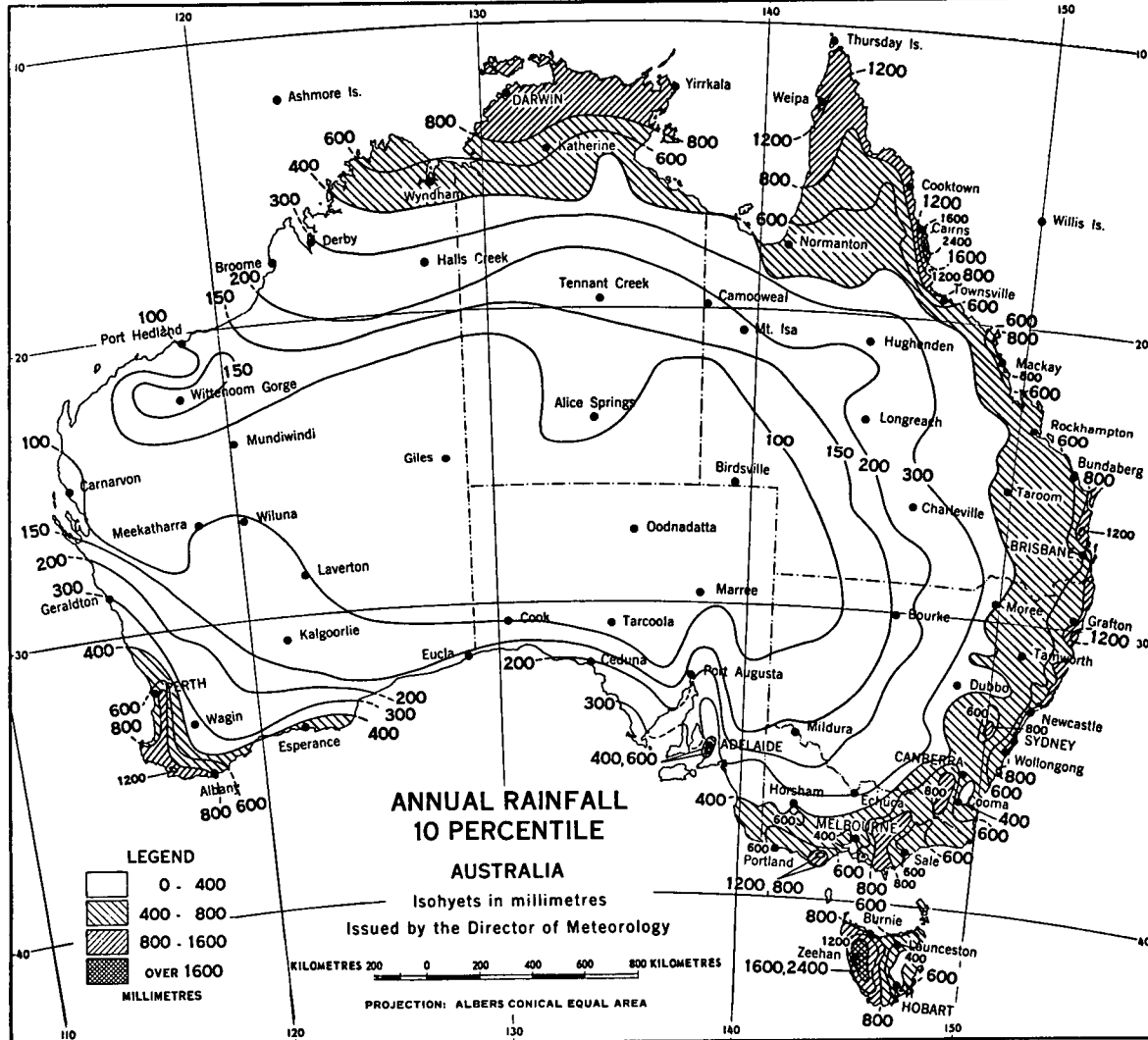
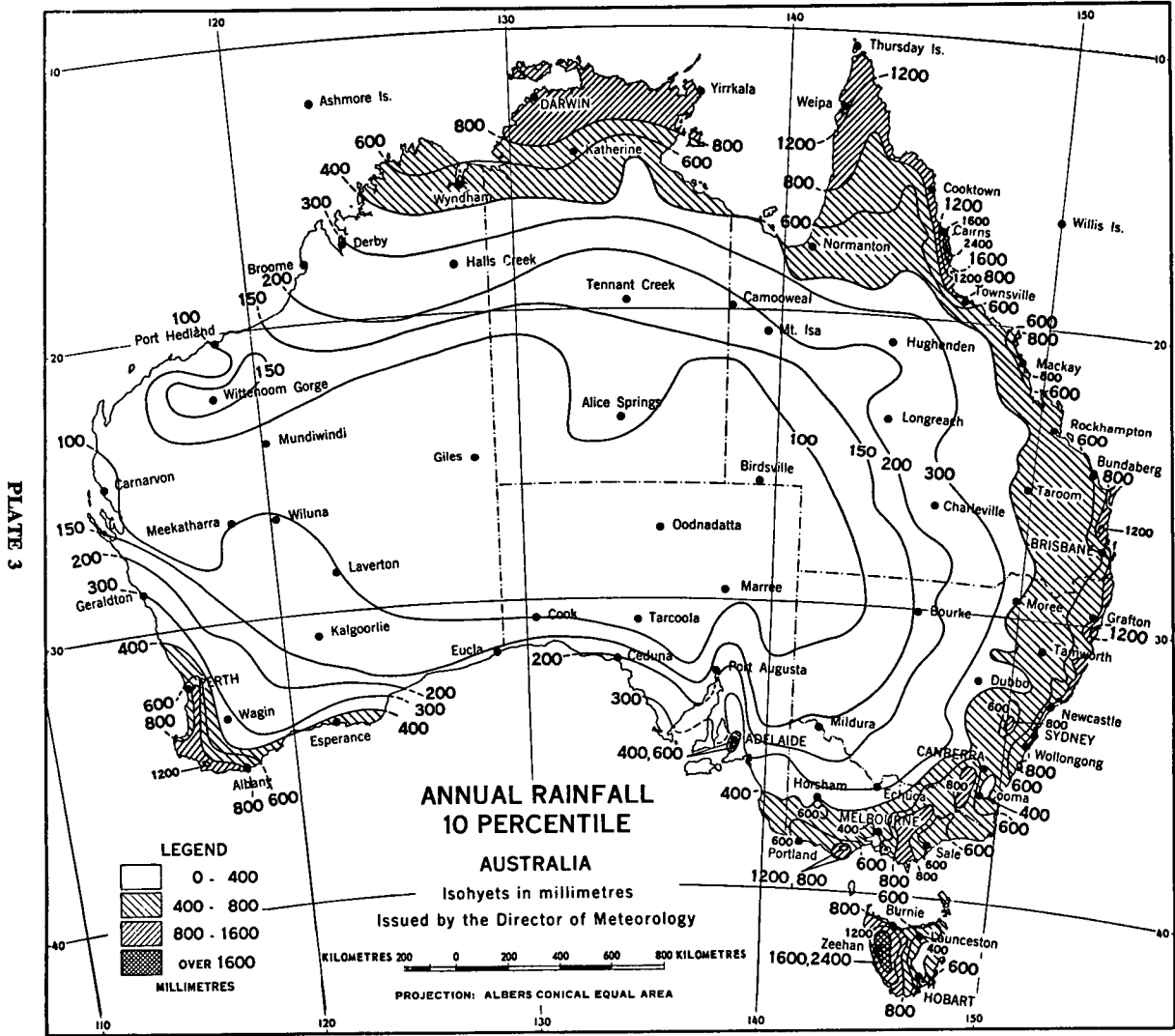
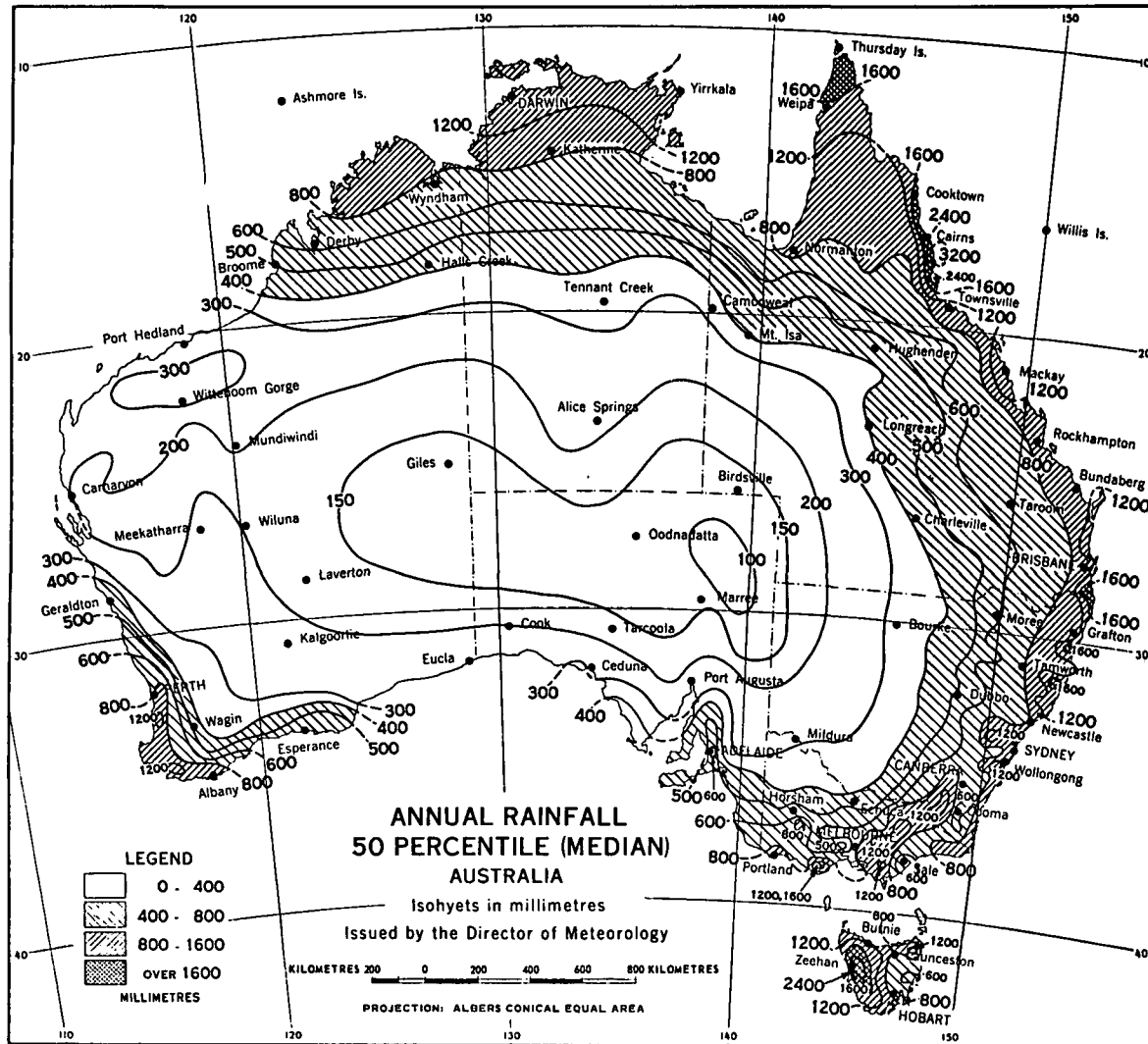
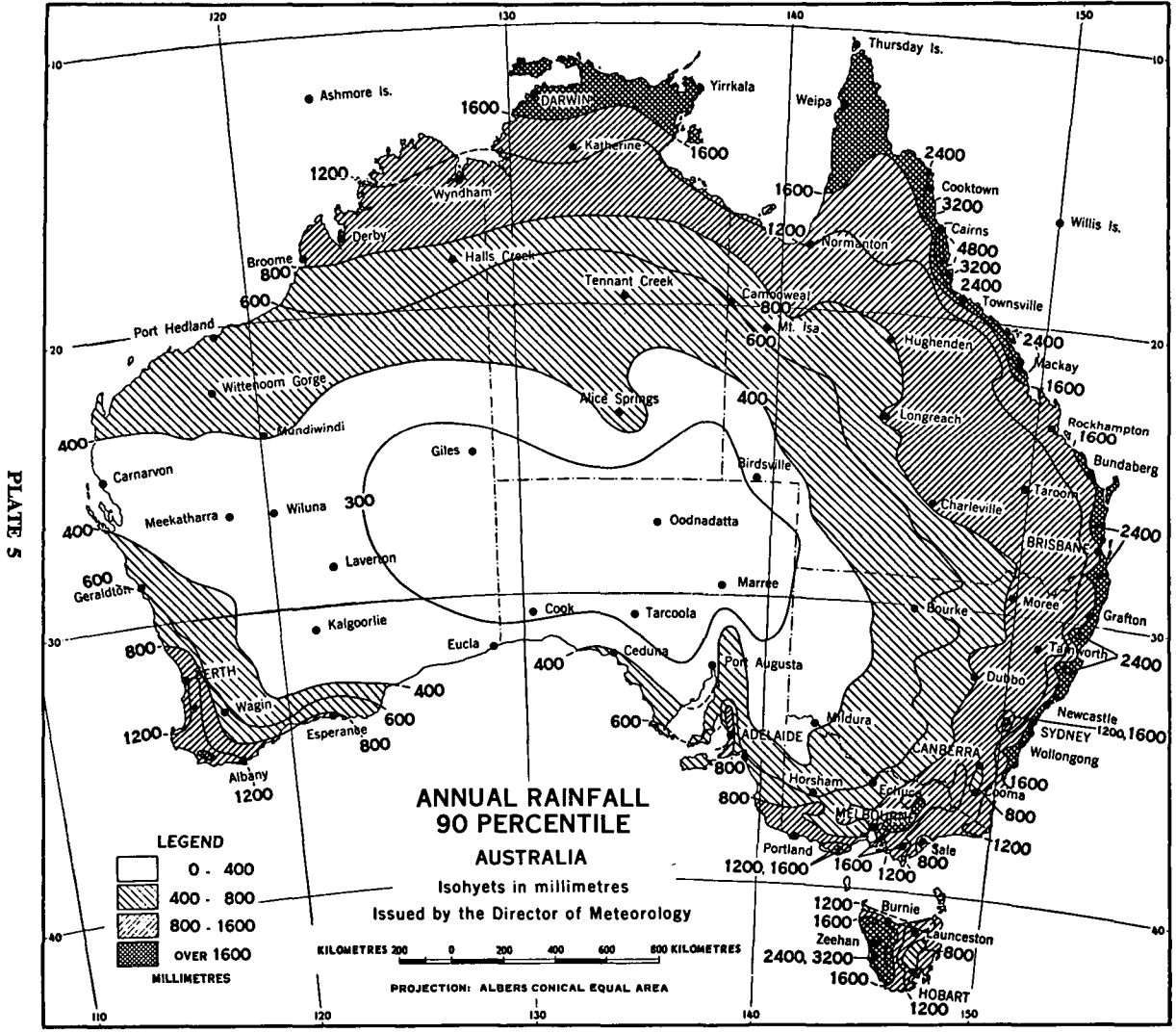


PLATE 4





The region with the highest median annual rainfall is the east coast of Queensland between Cairns and Cardwell, where Tully's median is highest (4,400 millimetres). The mountainous region of western Tasmania also has a high annual rainfall, with 3,600 millimetres at Lake Margaret. In the mountainous areas of north-east Victoria and some parts of the east coastal slopes there are small pockets with median annual rainfalls greater than 2,500 millimetres but the map scale is too small for these to be shown.

The Snowy Mountains area in New South Wales also has a particularly high rainfall. The highest median annual rainfall isohyet drawn for this region is 3,200 millimetres and it is likely that small areas have a median annual rainfall approaching 4,000 millimetres on the western slopes above 2,000 metres elevation. (Gaffney 1971 (i)).

The following table shows the area distribution of the median annual rainfall.

AREA DISTRIBUTION OF MEDIAN ANNUAL RAINFALL: AUSTRALIA
(Per cent)

<i>Median annual rainfall</i>	<i>W.A.</i>	<i>N.T.</i>	<i>S.A.</i>	<i>Qld</i>	<i>N.S.W.(a)</i>	<i>Vic.</i>	<i>Tas.</i>	<i>Aust.</i>
Under 200 mm . .	37.5	23.0	73.0	10.2	8.2	Nil	Nil	28.9
200 to 300 mm . .	33.4	23.6	14.7	13.7	21.7	3.4	Nil	22.3
300 „ 400 „ . .	10.8	11.4	4.5	9.8	18.0	16.6	Nil	10.8
400 „ 500 „ . .	5.4	9.3	5.1	14.7	11.5	12.2	Nil	8.8
500 „ 600 „ . .	4.5	6.3	1.9	12.1	8.5	17.7	0.2	7.1
600 „ 800 „ . .	4.4	11.5	0.8	19.4	16.7	24.7	29.8	10.6
800 „ 1,200 „ . .	3.9	7.5	Nil	14.9	12.1	19.9	29.1	8.1
Above 1,200 „ . .	0.1	7.4	Nil	5.2	3.3	5.5	40.9	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes Australian Capital Territory.

Seasonal. As discussed under the heading of climatic controls, the rainfall pattern is strongly seasonal in character with a winter rainfall regime in the south and a summer regime in the north.

The dominance of rainfall over other climatic elements in determining the growth of specific plants in Australia has led to the development of a climatic classification based on two main parameters. These parameters are median annual rainfall and seasonal rainfall incidence (Gaffney 1971 (ii)). Plate 6, page 34, is a simplified version of the seasonal rainfall zones arising from this classification, originally developed on the basis of imperial rather than metric units of measurement.

Evaporation and the concept of precipitation effectiveness are taken into account to some extent in this classification by assigning higher median annual rainfall limits to the summer zones than the corresponding uniform and winter zones. The main features of the seasonal rainfall are:

- (a) marked wet summer and dry winter of northern Australia;
- (b) wet summer and relatively dry winter of south-eastern Queensland and north-eastern New South Wales;
- (c) uniform rainfall in south-eastern Australia—much of New South Wales, parts of eastern Victoria and in southern Tasmania;
- (d) marked wet winter and dry summer of south-west Western Australia and (to a lesser extent) of much of the remainder of southern Australia directly influenced by westerly circulation;
- (e) arid area comprising about half of the continent extending from the north-west coast of Western Australia across the interior and reaching the south coast at the head of the Great Australian Bight.

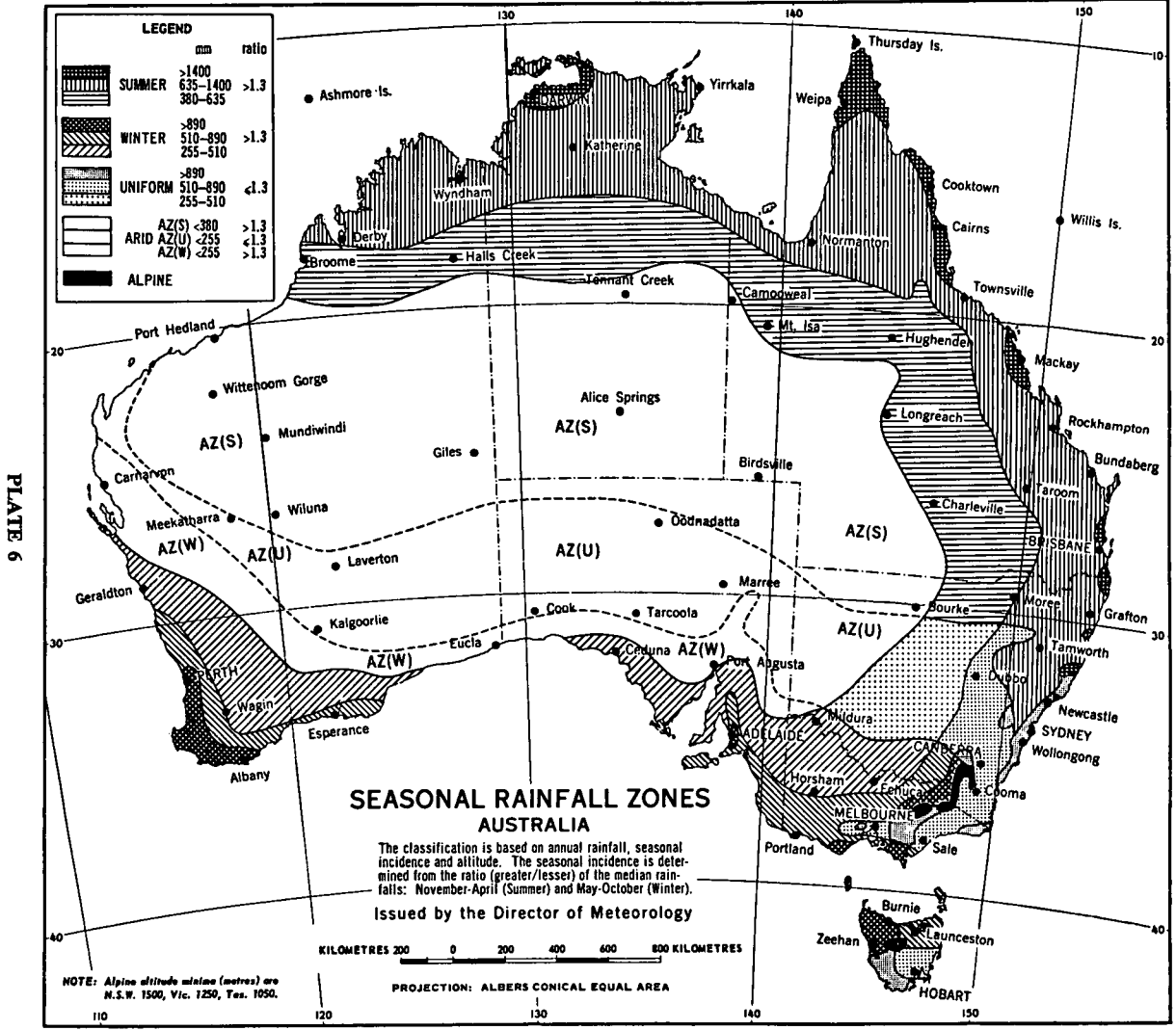


PLATE 6

Variability. The adequate presentation of rainfall variability over an extensive geographical area is difficult. Probably the best measures are found in tables compiled for a number of individual stations in some of the Climatic Survey districts. These tables show the percentage chances of receiving specified amounts of rainfall in monthly, seasonal or annual time spans. Statistical indexes of rainfall variation based on several techniques have been used to compile maps showing main features of the variability of annual rainfall over Australia.

One index for assessing the variability of annual rainfall is given by the ratio of the 90-10 percentile range to the 50 percentile (median value) i.e. Variability Index = $\left\{ \frac{90 - 10}{50} \right\}$ percentiles.

Variability based on this relationship is shown in Plate 7, page 36. The region of high to extreme variability shown in Plate 7, page 36, lies mostly in the arid zone with summer rainfall incidence, AZ(S), defined in Plate 6, page 34. In the winter rainfall zones the variability is generally low to moderate as exemplified by the south-west of Western Australia. In the tropics, random cyclone visitations cause extremely great variations in rainfall from year to year. At Onslow (Western Australia) annual totals vary from 15 mm in 1912 to 1,085 mm in 1961 and in the four consecutive years 1921 to 1924 the annual totals were 566, 69, 682, 55 mm respectively. At Whim Creek (Western Australia) where 747 mm have been recorded in a single day, only 4 mm were received in the whole of 1924. Great variability can also occur in the heavy rainfall areas; at Tully (Queensland) the annual rainfalls have varied from 7,899 mm in 1950 to 2,489 mm in 1961.

Rainday frequency. The average number of days per year with rainfall of 0.25 mm or more is shown in Plate 8, page 37.

The frequency of rain-days exceeds 150 per year in Tasmania, southern Victoria, parts of the north Queensland coast and in the extreme south-west of Western Australia with a maximum of over 200 in western Tasmania. Over most of the continent the frequency is less than 50 rain-days per year. The area of low rainfall with high variability, extending from the north-west coast of Western Australia through the interior of the continent, has less than 25 rain-days per year. In the high rainfall areas of northern Australia the number of rain-days is about 80 per year, but heavier falls occur in this region than in southern regions.

Intensity The highest rainfall intensities for some localities are shown in the first table page 38. These figures represent intensities over only small areas around the recording points because turbulence and exposure characteristics of the measuring gauge may vary over a distance of a few metres. The highest 24-hour (9 a.m. to 9 a.m.) falls are listed by States in the second table page 38. Most of the very high 24-hour falls (above 700 millimetres) have occurred in the coastal strip of Queensland, where a tropical cyclone moving close to mountainous terrain provides ideal conditions for spectacular falls. The highest 24-hour fall, 907 millimetres occurred at Crohamhurst, Queensland on 3 February 1893.

PLATE 7

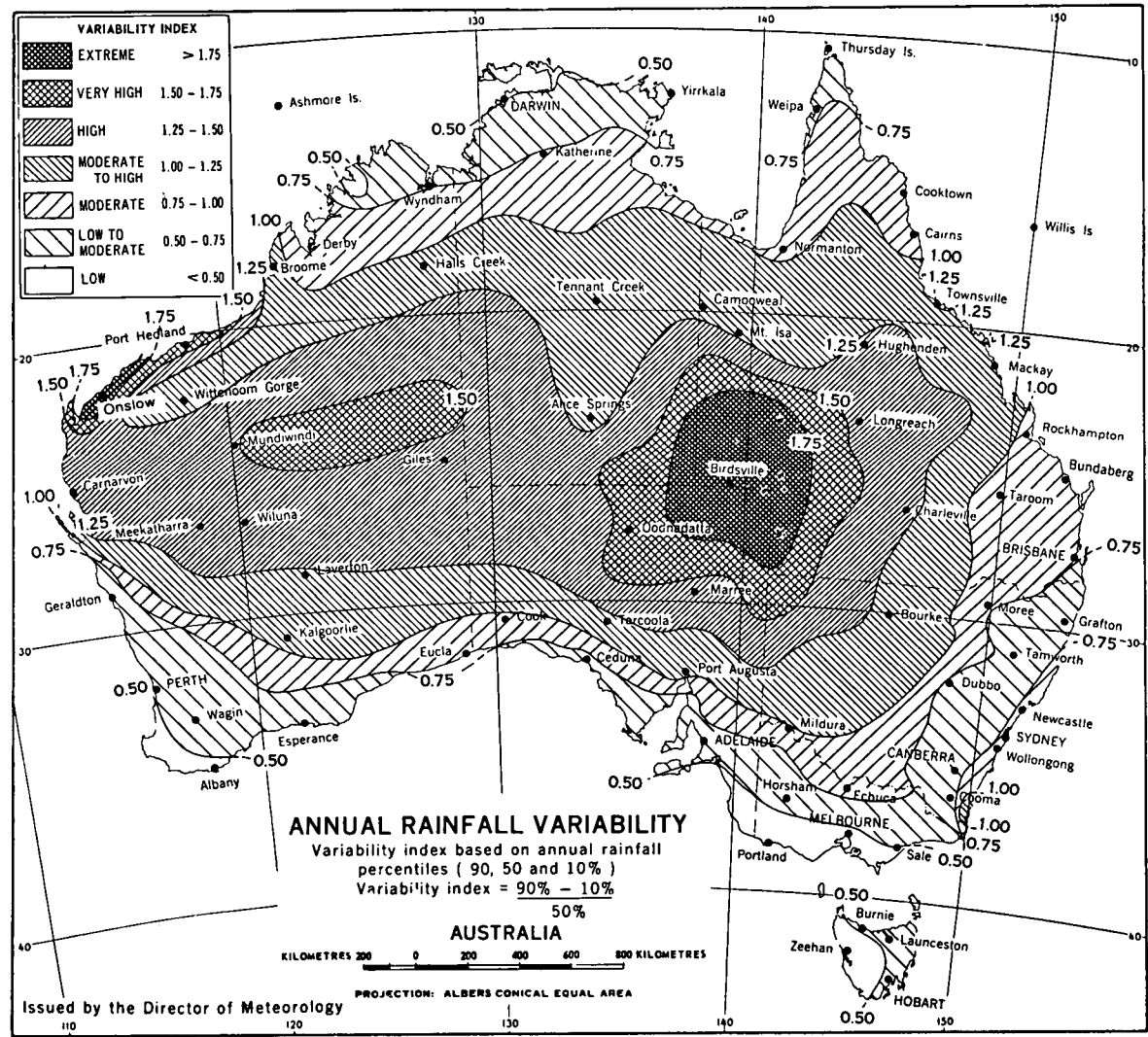
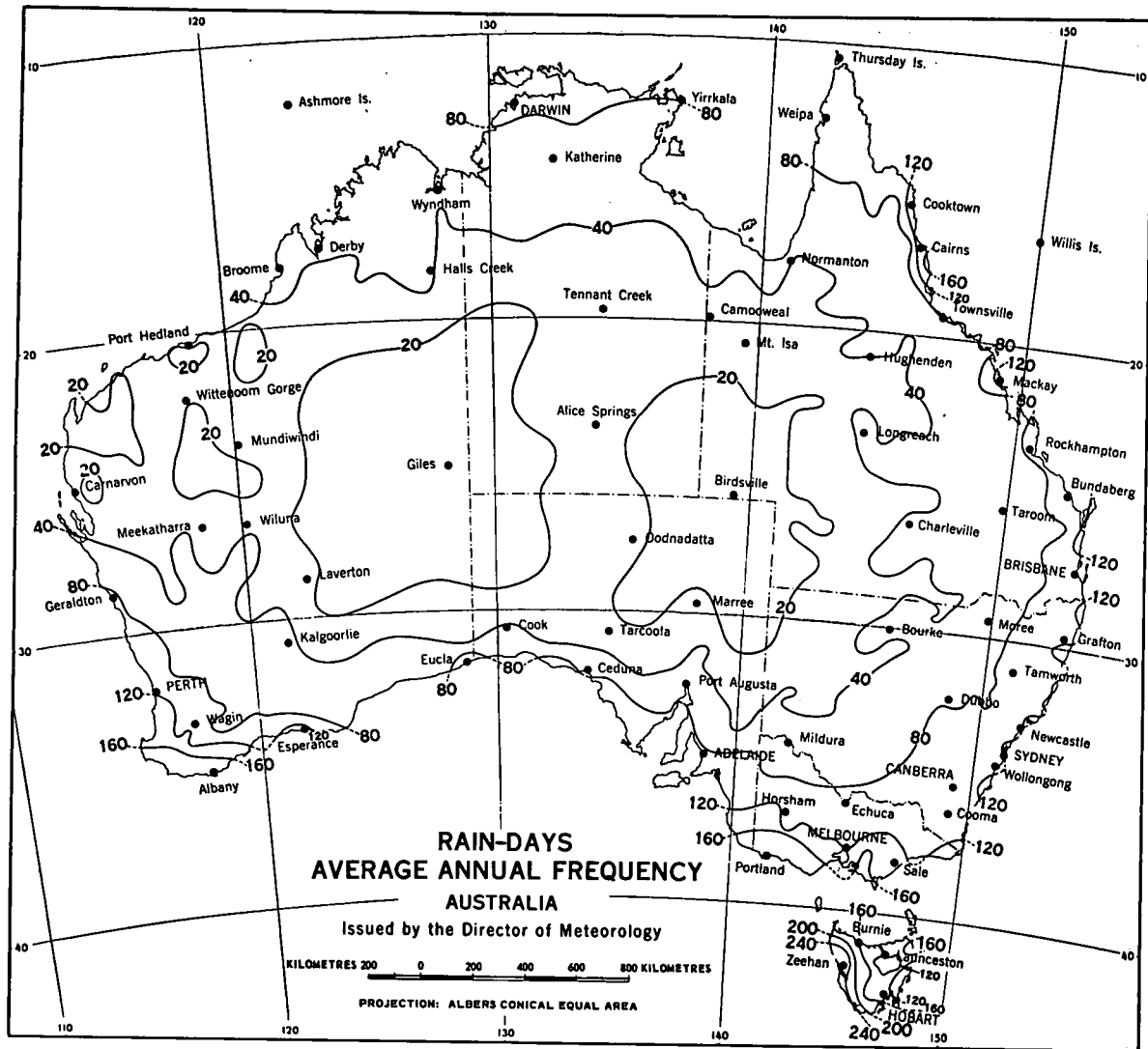


PLATE 8



**RAIN-DAYS
AVERAGE ANNUAL FREQUENCY
AUSTRALIA**

Issued by the Director of Meteorology

KILOMETRES 200 0 200 400 600 800 KILOMETRES

PROJECTION: ALBERS CONICAL EQUAL AREA

HIGHEST RAINFALL INTENSITIES IN SPECIFIED PERIODS

(millimetres)

Station	Period of record	Years of complete records	Period in hours				
			1	3	6	12	24
			mm	mm	mm	mm	mm
Adelaide . . .	1897-1967 . . .	67	69	133	141	141	141
Alice Springs . . .	1951-1970 . . .	18	54	55	64	87	106
Brisbane . . .	1911-1968 . . .	14	88	144	182	244	308
Broome . . .	1948-1970 . . .	23	72	119	130	172	228
Canberra . . .	1932-1970 . . .	35	51	68	71	89	138
Carnarvon . . .	1956-1971 . . .	16	32	63	82	95	108
Charleville . . .	1953-1971 . . .	19	42	66	75	111	142
Cioncurry . . .	1953-1972 . . .	17	46	118	164	173	204
Darwin . . .	1953-1970 . . .	15	88	101	109	152	191
Esperance . . .	1963-1972 . . .	8	23	45	62	68	79
Hobart . . .	1911-1970 . . .	57	28	56	87	117	168
Meekatharra . . .	1953-1971 . . .	17	26	67	80	98	112
Melbourne . . .	1878-1969 . . .	79	49	57	86	102	129
Mildura . . .	1953-1971 . . .	17	49	60	65	65	91
Perth . . .	1946-1971 . . .	24	32	38	47	64	93
Sydney . . .	1913-1967 . . .	51	69	134	162	180	281
Townsville . . .	1953-1970 . . .	16	87	111	122	161	275

Source: Pluviograph records in Bureau of Meteorology archives.

HIGHEST DAILY RAINFALLS

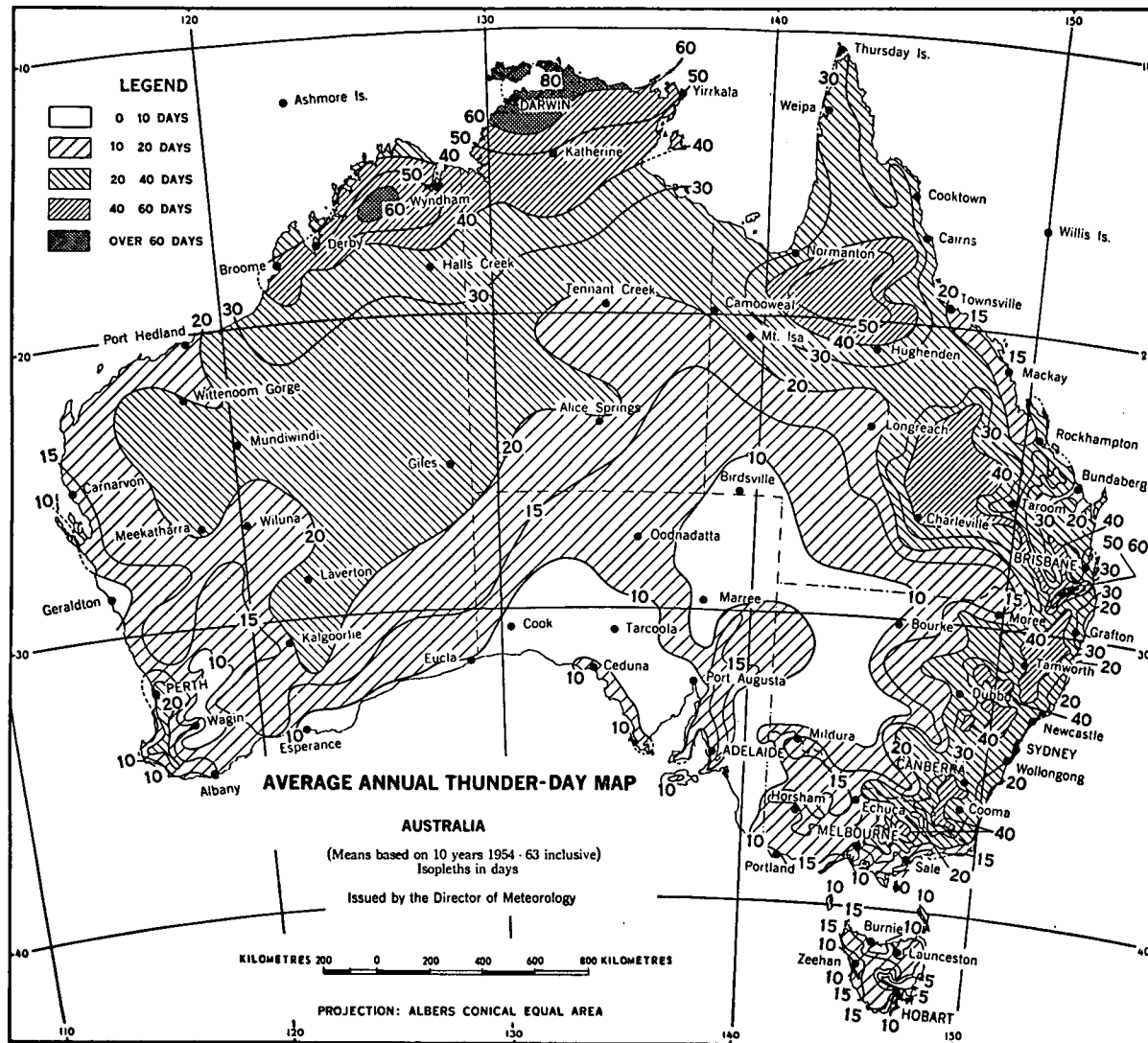
(all years to 1973 inclusive)

State	Station	Date	Amount
			mm
Queensland . . .	Crohamhurst . . .	3. 2. 1893	907
	Finch Hatton . . .	18. 2. 1958	878
	Mount Dangar . . .	20. 1. 1970	869
	Port Douglas . . .	1. 4. 1911	801
Western Australia . . .	Whim Creek . . .	3. 4. 1898	747
	Fortescue . . .	3. 5. 1890	593
New South Wales . . .	Dorrigo . . .	24. 6. 1950	636
	Cordeaux River . . .	14. 2. 1898	574
Northern Territory . . .	Roper Valley . . .	15. 4. 1963	545
	Groote Eylandt . . .	28. 3. 1953	513
Tasmania . . .	Mathinna . . .	5. 4. 1929	336
	Cullenswood . . .	5. 4. 1929	282
Victoria . . .	Balook . . .	18. 2. 1951	275
	Hazel Park . . .	1. 12. 1934	267
South Australia . . .	Ardrossan . . .	18. 2. 1946	206
	Carpa . . .	18. 2. 1946	199

Thunderstorms and hail A thunder-day at a given location is a calendar day on which thunder is heard at least once. Plate 9 page 39 shows isopleths (isobronts) of the average annual number of thunder-days which varies from 80 per year near Darwin to less than 10 per year over parts of the southern regions. Convective processes during the summer wet season cause high thunderstorm incidence in northern Australia. The generally high incidence (40-60 annually) over the eastern upland areas is produced mainly by orographic uplift of moist air streams.

Hail, mostly of small size (less than 10 millimetres diameter), occurs with winter/spring cold frontal activity in southern Australia. Summer thunderstorms, particularly over the uplands of eastern Australia, sometimes produce large hail (greater than 10 millimetres diameter). Hail, capable of piercing light gauge galvanised iron, occurs at irregular intervals sometimes causing widespread damage.

PLATE 9



Snow. Generally snow covers much of the Australian Alps above 1,500 metres for varying periods from late autumn to early spring. Similarly in Tasmania the mountains are covered fairly frequently above 1,000 metres in these seasons. The area, depth and duration are highly variable and in the altitude range 500–1,000 metres no snow falls in some years. Snowfalls at levels below 500 metres are occasionally experienced in southern Australia particularly in the foothill areas of Tasmania and Victoria but falls are usually light and short-lived. In some seasons parts of the eastern uplands above 1,000 metres from Victoria to south-eastern Queensland have been covered with snow for several weeks. In ravines around Mt Kosciusko (2,228 metres) small areas of snow may persist through summer but there are no permanent snowfields.

Temperature

Average temperatures. Average annual air temperatures as shown in plate 10, page 41 range from 28°C along the Kimberley coast in the extreme north of Western Australia to 4°C in the alpine areas of south-eastern Australia. Although annual temperature may be used for broad comparisons, monthly temperatures are required for detailed analyses.

July is the month with the lowest average temperature in all parts of the continent. The months with the highest average temperature are January or February in the south and December in the north, except in the extreme north and north-west where it is November. The slightly lower temperatures of mid-summer in the north are due to the increase in cloud during the wet season.

Average monthly maxima. Maps of average maximum and minimum temperatures for the months of January and July are shown in plates 11–14 inclusive.

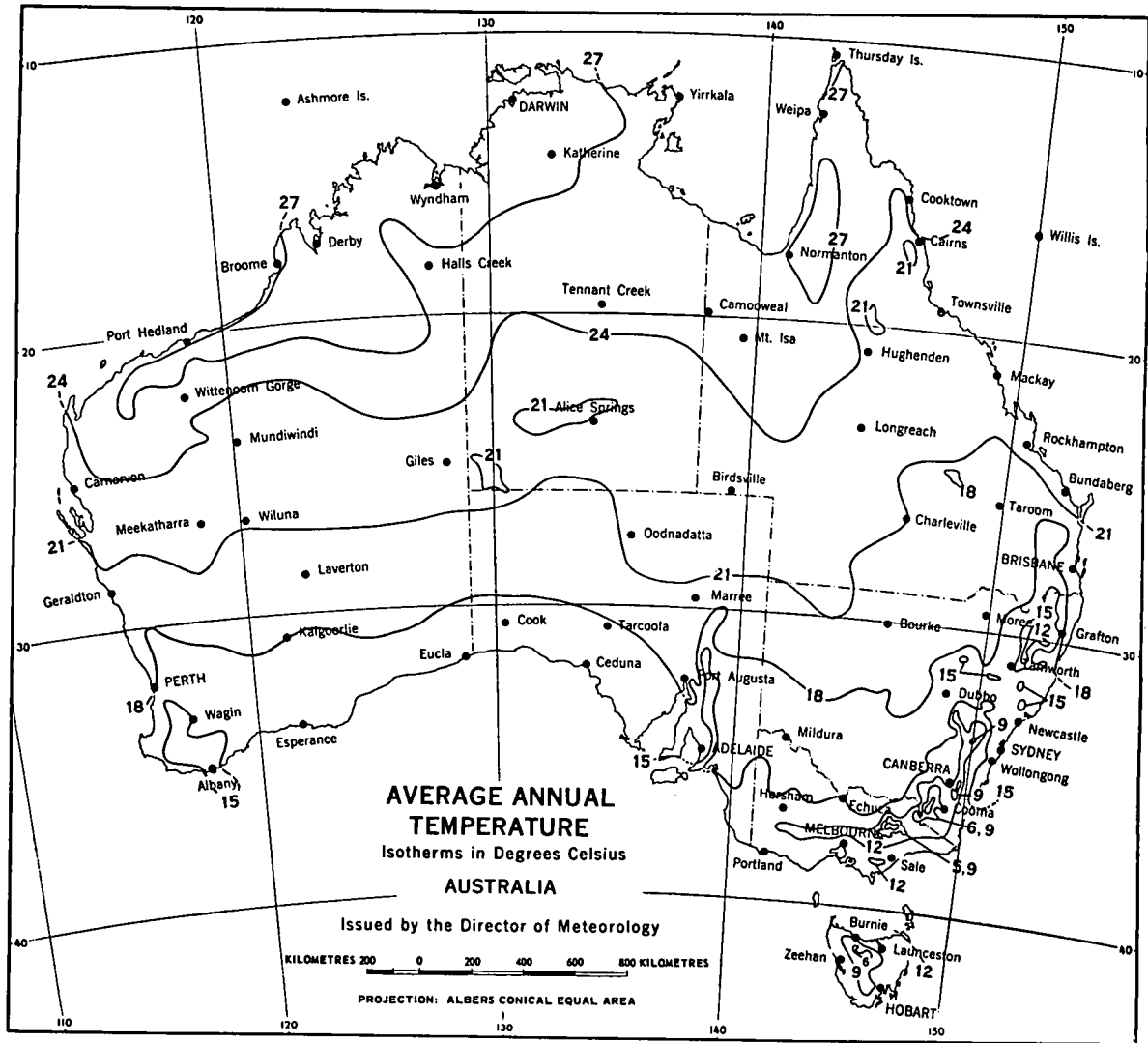
In January average maximum temperatures exceed 35°C over a vast area of the interior and exceed 40°C over appreciable areas of the north-west. The consistently hottest part of Australia is around Marble Bar, Western Australia (150 kilometres south-east of Port Hedland) where the average is 41°C and daily maxima during summer may exceed 40°C consecutively for several weeks at a time.

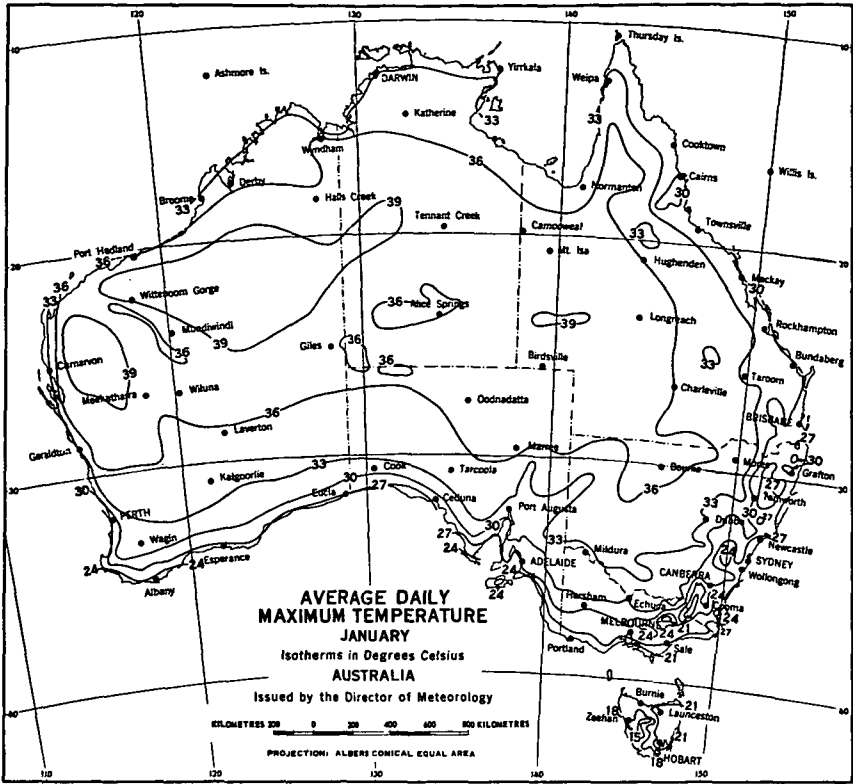
The marked gradients of isotherms of maximum temperature in summer in coastal areas, particularly along the south and west coasts, are due to the penetration inland of fresh sea breezes initiated by the sharp temperature discontinuities between the land and sea surfaces. There are also gradients of a complex nature in south-east coastal areas caused primarily by the uplands.

Maximum temperatures percentiles for the months of January and July for selected stations are contained in the table, page 44. One measure of the variability of maximum and minimum temperatures is given in the magnitude of the ratio (percentage) of the 20 to 80 percentile range to the median (50 percentile). In January variabilities of maxima based on this criterion show marked spatial variation (Melbourne 50 per cent; Darwin 15 per cent).

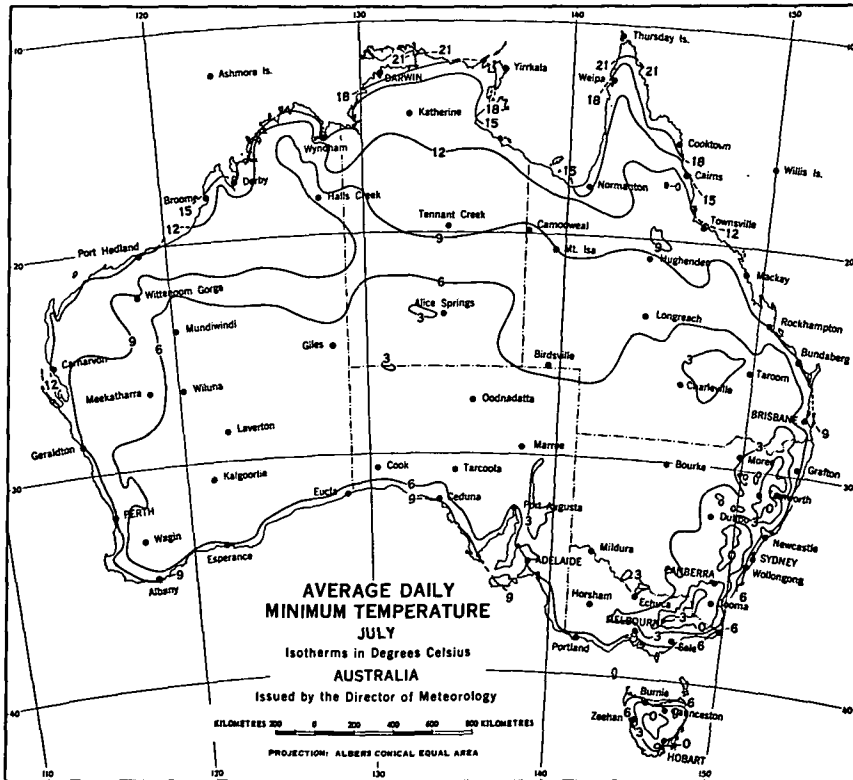
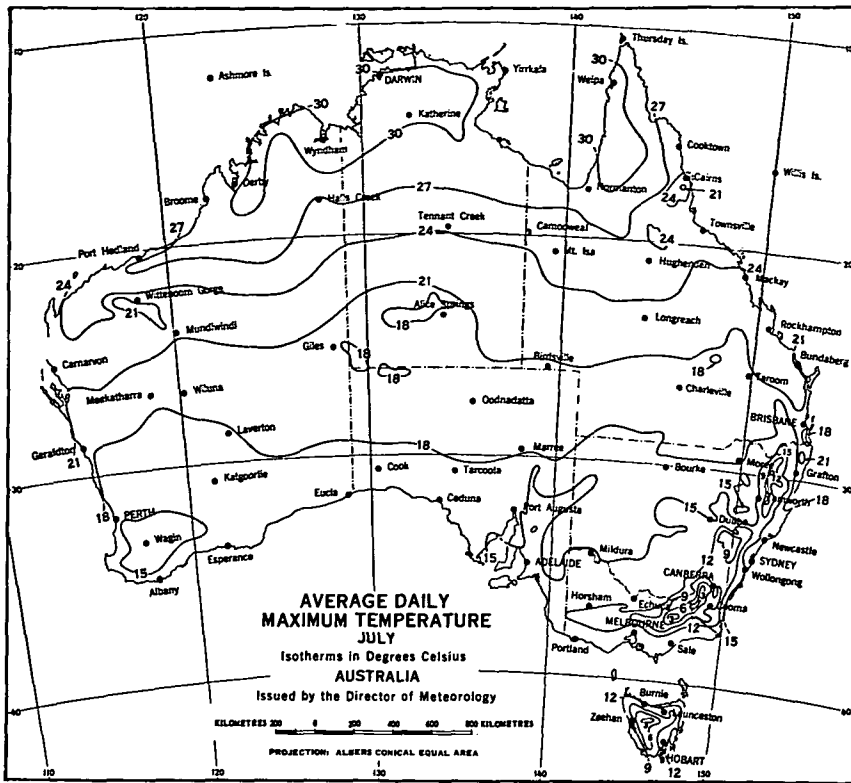
In July a more regular latitudinal distribution of average maxima is evident. Maxima range from 30°C near the north coast to 5°C in the alpine areas of the south-east. The table shows that maxima are generally less variable in July than in January (Melbourne 25 per cent; Darwin 10 per cent).

PLATE 10





PLATES 11 and 12



PLATES 13 and 14

MAXIMUM TEMPERATURES DAILY: VARIABILITY IN JANUARY AND JULY
(20, 50 and 80 percentile values, °C.)

Station	Period of record	January			July		
		Percentiles			Percentiles		
		20	50	80	20	50	80
Adelaide	1955-70	22	26	33	13	14	16
Alice Springs	1949-68	33	36	38	15	18	22
Birdsville	1957-71	35	39	42	17	19	23
Brisbane	1948-68	27	28	30	18	20	22
Canberra	1950-59	23	27	32	9	11	13
Ceduna	1949-68	22	26	35	14	16	18
Charleville	1949-68	30	34	37	16	18	22
Cloncurry	1949-68	34	37	39	22	24	28
Daly Waters	1939-68	33	36	38	26	28	31
Darwin	1951-70	29	31	33	28	30	31
Halls Creek	1949-68	34	37	39	23	26	29
Hobart	1957-70	18	21	27	9	11	13
Kalgoorlie	1949-68	28	33	38	13	16	18
Mackay	1959-68	28	29	30	19	21	22
Marble Bar	1957-71	37	41	44	24	27	29
Melbourne	1955-68	21	24	33	11	13	14
Perth	1953-70	25	29	35	15	17	18
Port Hedland	1949-68	33	36	38	24	26	28
Sydney	1955-70	22	24	28	15	17	18
Thursday Island	1950-68	28	29	31	26	27	28
Wilcannia	1957-68	32	36	39	14	17	19

Average monthly minima. In January average minima range from 27°C on the north-west coast to 5°C in the alpine areas of the south-east. The table below contains minimum temperature percentiles for January and July at selected stations. In January variabilities of minima calculated from the 20-80 percentile range differ spatially, the value for Melbourne being 45 per cent and for Darwin 15 per cent. In July average minima fall below 5°C in areas south of the tropics (away from the coasts). Alpine areas record the lowest temperatures; the average is as low as -5°C. The table below shows that minima are more variable in July (Melbourne, 85 per cent; Darwin 20 per cent) than in January.

MINIMUM TEMPERATURES DAILY: VARIABILITY IN JANUARY AND JULY
(20, 50 and 80 percentile values, °C.)

Station	Period of record	January			July		
		Percentiles			Percentiles		
		20	50	80	20	50	80
Adelaide	1955-70	13	16	20	6	8	9
Alice Springs	1949-68	17	21	24	0	3	7
Birdsville	1957-71	21	24	27	3	5	9
Brisbane	1948-68	19	20	22	7	9	12
Canberra	1950-59	9	12	15	-4	-1	7
Ceduna	1949-68	11	14	17	3	6	3
Charleville	1949-68	18	21	23	0	3	8
Cloncurry	1949-68	22	24	27	7	10	18
Daly Waters	1939-68	22	23	25	9	12	13
Darwin	1951-70	23	24	26	17	19	25
Halls Creek	1949-68	22	24	26	9	12	11
Hobart	1957-70	9	11	14	2	4	4
Kalgoorlie	1949-68	14	17	21	1	4	7
Mackay	1959-68	21	23	24	8	11	17
Marble Bar	1957-71	23	26	27	8	11	16
Melbourne	1955-68	10	14	16	3	6	3
Perth	1953-70	15	18	21	6	8	18
Port Hedland	1949-68	23	25	26	8	11	11
Sydney	1955-70	17	18	20	6	8	4
Thursday Island	1950-68	23	24	26	21	22	29
Wilcannia	1957-68	16	19	23	1	3	3

Extreme maxima. Temperatures have exceeded 45°C at nearly all inland stations more than 150 kilometres from the coast and at many places on the north-west and south coasts. Temperatures have exceeded 50°C at some inland stations and at a few near the coast. It is noteworthy that Eucla on the south coast has recorded the highest temperature in Western Australia 50.7°C. This is due to the long trajectory over land of hot north-west winds from the Marble Bar area. Although the highest temperature recorded in Australia was 53.1°C at Cloncurry (Queensland) more stations have exceeded 50°C in western New South Wales than other areas, due to the long land trajectory of hot winds from the north-west interior of the continent.

Extreme maximum temperatures recorded at selected stations, including the highest recorded in each State, are shown in the table below.

EXTREME MAXIMUM TEMPERATURES

(All years to 1973 inclusive)

Station	°C	Station	°C
Western Australia—		New South Wales—	
Eucla	50.7	Bourke	52.8
Roebourne	49.5	White Cliffs	51.1
Marble Bar	49.2	Walgett	50.1
Northern Territory—		Wilcannia	50.0
Charlotte Waters (near Finke)	48.2	Menindee	49.7
South Australia—		Australian Capital Territory—	
Oodnadatta	50.7	Canberra	42.2
Kyancutta	49.3	Victoria—	
Queensland—		Mildura	50.8
Cloncurry	53.1	Tasmania—	
Winton	50.7	Bushy Park	40.9
Birdsville	50.0	Hobart	40.7

Extreme minima. The lowest temperatures in Australia have been recorded in the Snowy Mountains, where Charlotte Pass (elevation 1,760 metres) has recorded -22.2°C. Temperatures have fallen below -5°C at most inland places south of the tropics and at some places within a few kilometres of southern coasts. At Eyre on the south coast of Western Australia a minimum of -3.9°C has been recorded and at Swansea on the east coast of Tasmania, the temperature has fallen as low as -4.4°C.

In the tropics, extreme minima below 0°C have been recorded at many places away from the coasts as far north as Herberton, Queensland (-3.3°C). Even very close to the tropical coastline temperatures have fallen to 0°C, a low recording being -0.8°C for Mackay.

The next table shows extreme minimum temperatures recorded at specified stations, including the lowest recorded in each State.

EXTREME MINIMUM TEMPERATURES

(all years to 1973 inclusive)

Station	°C	Station	°C
Western Australia—		New South Wales—	
Dwellingup	-7.0	Charlotte Pass	-22.2
Booylgoo	-6.7	Kiandra	-20.6
Salmon Gums	-5.4	Kosciusko Hotel	-14.4
Northern Territory—		Cooma	-11.2
Alice Springs	-7.2	Australian Capital Territory—	
Tempe Downs	-6.0	Canberra	-10.0
South Australia—		Victoria—	
Yongala	-8.1	Mount Hotham	-12.8
Kyancutta	-7.0	Omeo	-10.0
Queensland—		Bairnsdale	-7.2
Stanthorpe	-11.0	Tasmania—	
Nanango	-9.3	Oatlands	-12.8
		Bothwell	-12.5

Temperature range. The average annual temperature range values shown in plate 15, page 47, have been determined by subtracting the lowest average monthly minimum from the highest average monthly maximum. On the basis of this criterion the greatest average range is 33°C over the western interior and the least is 9°C at the tip of Cape York Peninsula. The strong gradient in average range around the coastline illustrates the continental effect. This is marked on the Kimberley coast of Western Australia, where the range varies from 15°C on the coast to 24°C on the plateau a few kilometres inland.

Extreme temperature range, which is mapped in plate 16, page 47, has been calculated by subtracting the lowest temperature on record for each station from its highest. The greatest absolute range yet recorded is 57.2°C at White Cliffs in north-western New South Wales. This extreme range is confined to an elongated area in far north-western New South Wales, where maxima exceeding 49°C in north-westerly air in summer have been recorded and minima about -8°C during cold southern outbreaks in winter. In general terms the extreme range is about 30°C on the northern coast, 45°C on the southern coasts and 50°C away from the coasts.

Heat waves. Periods with a number of successive days having a temperature higher than 40°C are relatively common in summer over parts of Australia. With the exception of the north-west coast of Western Australia, however, most coastal areas rarely experience more than three successive days of such conditions. The frequency increases inland, and periods of up to ten successive days have been recorded at many inland stations. This figure increases in western Queensland and north-western Western Australia to more than twenty days in places. The central part of the Northern Territory and the Marble Bar-Nullagine area of Western Australia have recorded the most prolonged heat waves.

Heat waves are experienced in the coastal areas from time to time such as during 11-14 January 1939, when a severe heat wave affected south-eastern Australia. During this period Adelaide had a record of 47.6°C on the 12th, Melbourne a record of 45.6°C on the 13th and Sydney a record of 45.3°C on the 14th.

Frost. In Australia frost can cause serious losses in agricultural crops, and numerous climatic studies have been made relating to specific crops cultivated in local areas. Foley (1945 (i)) made a comprehensive study of the incidence of frost at stations recording minimum temperature. Since Foley's work was published the number of stations recording minimum temperatures has increased appreciably.

Under calm conditions, overnight temperatures at ground level are often as much as 5°C lower than those measured in the instrument screen (base height 1.1 metre); differences of 10°C have been recorded. Only a small number of stations measure minima at ground level, the lowest recordings being -14.6°C at Stanthorpe (Queensland) and -13.4°C at Canberra. Lower readings may be recorded in alpine areas. The lowest readings of minimum temperature at ground level for the capital cities are shown in the table below.

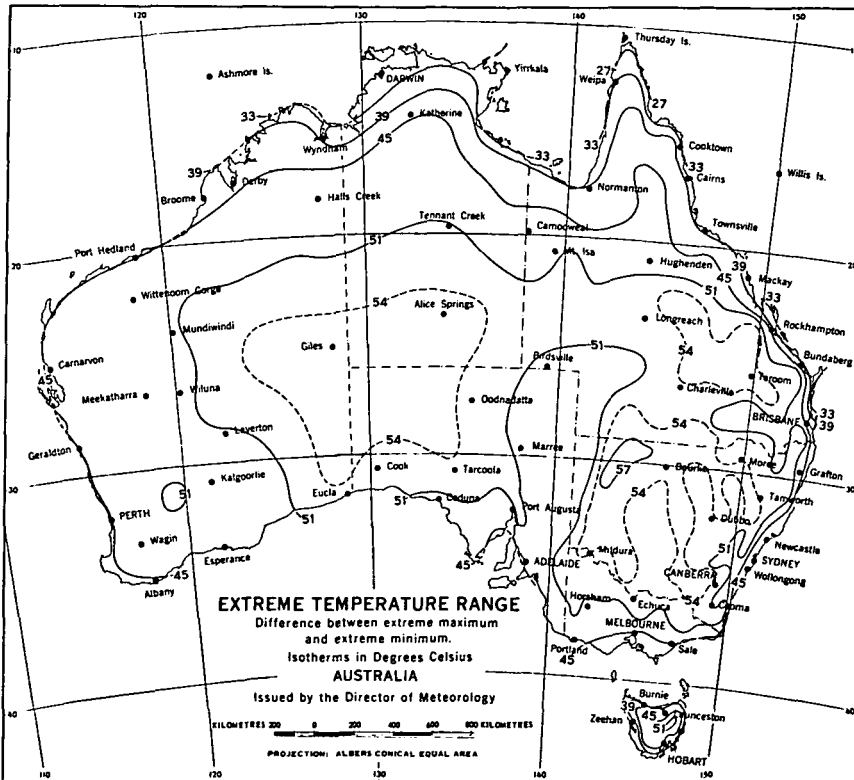
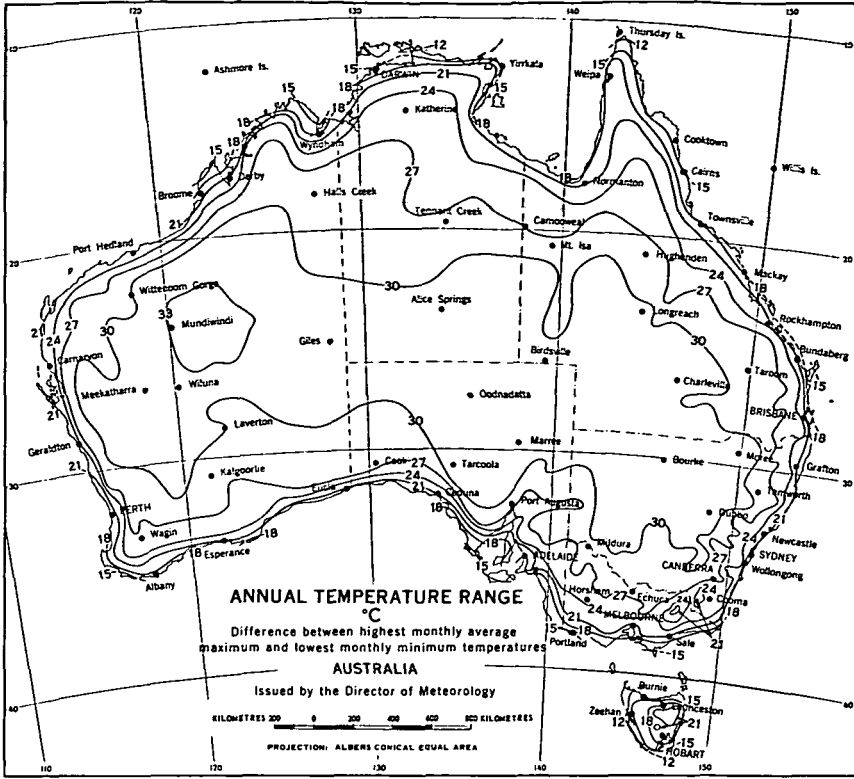
EXTREME MINIMUM TEMPERATURES RECORDED ON THE GROUND
(°C)

Station	Years of record	Years of record												Year
		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Adelaide .	110	2.5	2.1	0.1	-2.2	-3.6	-6.1	-5.5	-5.1	-3.9	-3.0	-0.3	0.3	-6.1
Brisbane .	83	9.9	9.5	7.4	2.6	-1.2	-3.7	-4.5	-2.7	-0.9	1.6	3.8	9.5	-4.5
Canberra .	18	-0.4	0.3	-4.0	-8.3	-10.4	-13.4	-12.8	-12.8	-9.4	-6.2	-6.3	-3.9	-13.4
Hobart .	83	-0.8	-2.1	-2.5	-3.9	-6.7	-7.7	-7.4	-6.6	-7.6	-4.6	-3.3	-2.7	-7.7
Melbourne	111	-1.0	-0.6	-1.7	-3.9	-6.1	-6.7	-6.4	-5.9	-5.1	-4.0	-4.1	0.7	-6.7
Perth .	72	4.2	4.3	2.6	-0.7	-3.9	-3.4	-3.8	-3.0	-2.7	-1.2	1.6	3.3	-3.9
Sydney .	112	6.5	6.0	4.4	0.7	-1.5	-2.2	-4.4	-3.3	-1.0	0.4	1.9	5.2	-4.4

Frost frequency depends on location and orography, and even on minor variations in contour of the land. The parts of Australia which are most subject to frost are the eastern uplands from north-eastern Victoria to the western Darling Downs in southern Queensland. Most stations in this region experience more than ten nights a month with readings of 0°C (or under) for three to five months of the year. On Tasmania's Central Plateau similar conditions occur for three to six months of the year. Frosts may occur within a few miles of the coasts except the Northern Territory coast and most of the north Queensland coast.

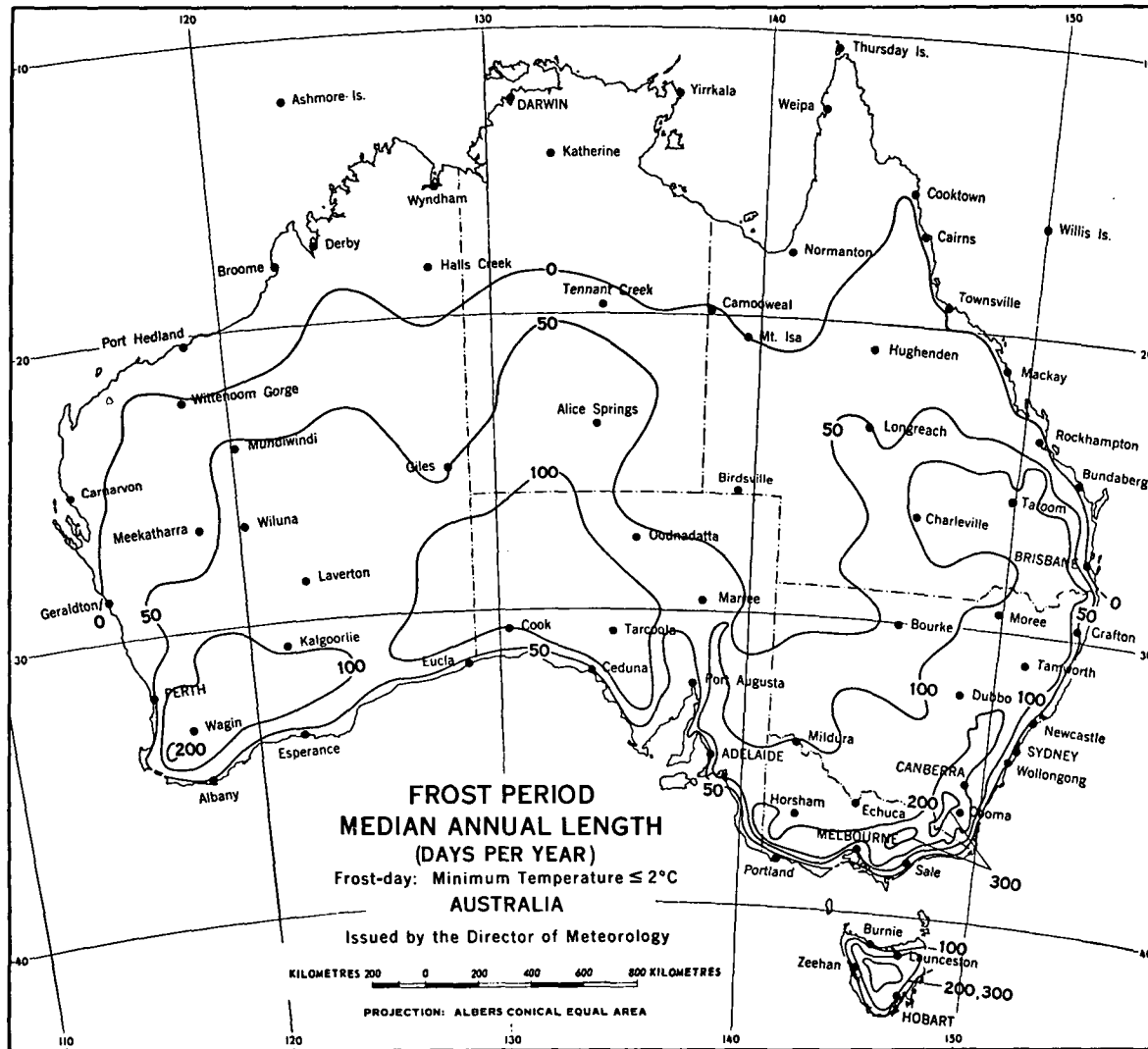
Regions in which frosts may occur at any time of the year comprise most of Tasmania, large areas of the tablelands of New South Wales, much of inland Victoria, particularly the north-east, and a small part of the extreme south-west of Western Australia. Over most of the interior of the continent, and on the highlands of Queensland as far north as the Atherton Plateau, frosts commence in April and end in September. Minimum temperatures below 0°C are experienced in most of the subtropical interior in June and July.

The length of the frost period for the year is taken as the number of days between the first and last recording of an air temperature of 2°C or less. The median duration of the frost period in days per year is shown in plate 17, page 48.



PLATES 15 and 16

PLATE 17



The median frost period over the continent varies from over 200 days per year in the south-eastern uplands areas south of the Hunter Valley to zero in northern Australia. In the southern regions of the continent the annual frost period generally decreases from about 100 days inland to below 50 days towards the coast. However, there are appreciable spatial variations depending mainly on local orography. In Tasmania the frost period exceeds 300 days on the uplands and decreases to 100 days near the coast.

The table below includes the average annual frequency of minima of 2°C or less for a wide selection of stations, particularly those prone to frosts. These data show the high spatial variability of frost frequency across Australia. The south-eastern alpine areas, as represented by Kiandra (elevation 1,400 metres), have a frequency exceeding 200. At Kalgoorlie the average annual frequency is 27, at Alice Springs 33, Charleville 37, Canberra 105 and Melbourne 19.

FROST FREQUENCY

Average annual number of frosty nights (screen minimum ≤2°C) and heavy frosts (≤0°C)

Station	Period of record	Altitude (metres)	Number of	
			frosty nights	heavy frosts
Adelaide (airport)	1955-70	10	8	1
Alice Springs	1940-71	550	33	11
Ballan (near Ballarat)	1944-64	500	63	20
Birdsville	1957-71	40	7	1
Brisbane (Archerfield airport)	1939-49	10	9	3
Canberra	1939-71	570	105	65
Ceduna	1939-71	20	18	5
Charleville	1942-71	290	37	15
Hobart (Risdon)	1957-70	40	25	5
Kalgoorlie	1939-71	360	27	7
Kiandra	1957-69	1,400	226	176
Loch Valley (E of Melbourne)	1943-59	500	101	53
Melbourne (Essendon airport)	1939-71	80	19	4
Mount Gambier	1942-71	60	33	10
Perth (airport)	1944-71	20	5	0
Walgett	1957-71	130	30	7

The next table shows percentiles (20, 50 and 80) of the annual number of frosts at selected stations. The difference between the 20 and 80 percentile figures relative to the 50 percentile (median) shows that there is great variability in the number of frosts at individual stations from year to year.

FROST VARIABILITY

Annual number of frosty nights (≤2°C) and heavy frosts (≤0°C) 20, 50 and 80 percentiles

Station	Period of record	Altitude (metres)	Number of frosty nights			Number of heavy frosts		
			Percentiles			Percentiles		
			20	50	80	20	50	80
Alice Springs	1941-71	550	16	27	37	5	8	14
Bathurst	1957-71	705	83	101	111	51	69	76
Beechworth (SW of Albury)	1957-71	550	51	58	73	16	22	26
Bridgetown	1957-69	155	30	43	53	7	11	19
Canberra	1939-71	571	87	105	116	48	64	75
Charleville	1943-71	290	21	35	45	6	14	19
Dubbo	1957-71	262	39	43	50	10	14	27
Hay	1957-71	93	21	34	37	5	9	13
Kalgoorlie	1942-71	360	15	22	31	2	4	9
Kiandra	1957-68	1,400	206	228	250	163	175	193
Kyancutta	1957-69	58	31	39	40	7	14	20
Mount Gambier	1942-71	60	20	27	34	3	6	13
Mundiwindi	1957-69	575	8	11	29	2	3	11
Nhill (near Horsham)	1957-71	129	41	47	58	12	17	26
Oatlands	1957-71	435	85	101	111	38	46	57
Omeo	1957-71	660	115	132	138	59	74	83
Richmond (NW of Sydney)	1953-71	20	23	30	40	6	10	13
Sale	1945-71	5	25	34	45	5	11	17
Swansea	1957-71	8	38	45	61	7	13	19
Wandering (SE of Perth)	1957-69	335	41	57	70	13	25	34
Waratah	1957-71	627	104	117	131	35	44	53
Yongala (E of Port Pirie)	1957-69	515	62	75	90	32	39	52

By convention a heavy frost is taken as corresponding to a minimum screen temperature of 0°C or less—see the two previous tables. The regions of mainland Australia most prone to heavy frosts are the eastern uplands and adjacent areas extending from Victoria through New South Wales to south-eastern Queensland. Stations above 1,000 metres in altitude in the southern parts of these uplands have more than 100 heavy frosts annually; and in the upland areas below 1,000 metres the annual frequency ranges from 100 to about 20. Over the remainder of southern Queensland, New South Wales and Victoria, although there are great spatial variations, the average annual frequency of heavy frosts typically ranges from about 20 inland to 10 towards the coasts. Some places on the coast experience heavy frosts, for example Portland, Victoria; with 3 annually.

In Tasmania, uplands above 1,000 metres have more than 100 heavy frosts annually and in neighbouring areas the frequency is about 100 decreasing to 20 towards the coasts. Even some coastal stations have a relatively high frequency, for example Swansea, 13.

The southern half of Western Australia, the whole of South Australia, and the Alice Springs district of the Northern Territory experience heavy frosts. Differences in annual frequencies between places are great but in general the frequency is about 10 inland, decreasing towards the coasts. Some places average more than 20 heavy frosts annually, notably Wandering, Western Australia (21) and Yongala, South Australia (29). At Alice Springs the annual average frequency is 11.

Humidity

Australia is a dry continent in terms of the water vapour content (humidity) of the air. Humidity is measured at Bureau of Meteorology observational stations by dry and wet bulb thermometers mounted in standard instrument screens. These measurements enable moisture content to be expressed in a number of ways two of which are vapour pressure and relative humidity.

Vapour pressure. Vapour pressure is the pressure exerted by the water vapour in the air and, as such, is a measure of the actual amount of water vapour. The amount of water vapour does not normally vary greatly during the day although afternoon sea breezes at coastal stations may bring in moisture to increase the vapour pressure by amounts up to 5 millibars. The 9 a.m. figure may be taken as an approximation to the mean value for the day. The next table page 51, contains average 9 a.m. vapour pressure figures for selected stations. The average annual figures range from 8.2 millibars at Alice Springs to 25.9 millibars at Darwin and 27.6 millibars at Thursday Island. At the high level station Kiandra (1,400 metres) the average annual figure is 7.3 millibars. Excluding values at Kiandra monthly averages range from 6.0 millibars at Alice Springs in August to 31.1 millibars at Darwin in January and at both Darwin and Broome in February.

Vapour pressure in association with air temperature has been used as a measure of climatic discomfort as it affects human beings. Comfortable conditions are generally accepted as being within the vapour pressure range 7–17 millibars, with air temperatures in the range 15–30°C. Above these limits heat discomfort increases and below the limits cold discomfort increases. The wet bulb temperature may also be used as a simple measure of heat discomfort since discomfort increases as the wet bulb temperature rises above 20°C. Climatic discomfort is treated later in this chapter.

Relative humidity. Relative humidity at a given temperature is the ratio (expressed as a percentage) of actual vapour pressure to the saturated vapour pressure at that temperature. The relative humidity at 9 a.m. may be taken as an approximation of the mean relative humidity for the day (24 hours). As a measure of human discomfort this parameter is of limited value because it must be related to the temperature at the time.

The table, on page 51, contains average relative humidity (per cent) at 9 a.m. for selected stations. Average annual figures range from 30 per cent at Mundiwindi to 80 per cent at Thursday Island. Monthly averages range from 17 per cent at Mundiwindi in October to 89 per cent at Katanning in June, July and August and at Kiandra in June. In northern Australia the highest relative humidity occurs in the summer rainy season about February and the lowest in the winter dry season about July. Darwin averages 81 per cent in January and February and 62 per cent in July. In most of southern Australia the highest relative humidity is experienced in the winter rainy season about June or July and the lowest in the warmer months. Perth averages 76 per cent in July and 51 per cent in December, January and February. Over the interior, relative humidity is consistently low although higher averages occur in winter months when temperatures are low. At Alice Springs, October has the lowest average (24 per cent) and June the highest (62 per cent).

The pattern of variation of relative humidity differs from that of vapour pressure, particularly in the south. This is due to the difference in variation of the two parameters with temperature. If the amount of moisture in the air remains constant, vapour pressure decreases slightly with falling temperature, whereas relative humidity increases. Perth for example, has an average 9 a.m. vapour pressure of 14.8 millibars in January and 10.7 millibars in August; and corresponding relative humidity figures are 51 and 71 per cent.

AVERAGE VAPOUR PRESSURE AT 9 A.M.

(mb)

NOTE. The average monthly and annual figures in this and the next table are derived from the average monthly and annual dry and wet bulb temperatures respectively, using psychrometric formulae. Due to the nature of these formulae annual figures so derived may not equal averages of monthly figures.

Station	Period of record	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Adelaide	1868-1971	11.9	12.3	11.7	11.3	10.8	9.9	9.4	9.7	9.9	10.1	10.5	11.1	10.7
Alice Springs	1957-1971	11.9	11.5	10.5	10.1	8.4	7.9	6.5	6.0	6.6	6.8	8.6	9.9	8.2
Armidale	1957-1971	15.1	15.5	14.1	11.7	8.7	7.5	6.3	7.3	8.3	10.1	11.5	13.3	10.2
Brisbane	1887-1950	21.7	22.0	20.9	17.5	14.3	12.1	11.1	11.7	13.8	16.0	18.1	20.1	16.6
Broome	1957-1971	29.4	31.1	29.4	22.4	14.6	14.2	11.8	11.8	15.8	21.7	25.3	28.8	20.8
Canberra	1940-1971	13.1	13.8	12.5	10.3	8.4	7.1	6.6	7.0	8.2	9.7	10.4	11.9	9.9
Carnarvon	1957-1971	21.7	21.9	19.9	16.9	13.8	14.0	11.8	11.6	12.3	13.8	15.9	18.8	15.8
Ceduna	1957-1971	13.8	14.3	14.1	12.0	11.1	9.7	9.4	9.6	10.3	10.3	10.9	12.2	11.1
Charleville	1957-1971	16.7	17.1	15.6	12.5	10.2	9.3	7.8	8.1	8.5	10.5	11.3	14.4	11.3
Cloncurry	1957-1971	19.9	21.2	17.8	13.3	10.4	9.2	7.6	6.9	7.5	9.9	11.8	15.4	12.0
Darwin	1882-1966	31.1	31.1	30.7	27.0	21.8	18.7	17.6	20.6	24.7	27.7	29.3	30.5	25.9
Esperance	1957-1969	16.0	16.7	15.7	14.4	12.7	12.1	11.1	11.1	11.7	12.9	13.9	15.3	13.5
Halls Creek	1957-1971	21.1	21.7	18.5	12.4	10.3	8.2	6.9	6.7	7.5	10.9	13.9	18.0	12.6
Hobart	1894-1970	11.0	11.7	11.0	10.0	8.8	7.9	7.6	7.9	8.3	9.1	9.6	10.6	9.5
Kalgoorlie	1957-1971	12.9	14.0	13.1	11.8	10.3	10.1	8.9	8.8	9.1	9.6	10.5	11.7	10.7
Katanning	1957-1972	13.2	13.9	13.2	12.5	11.0	10.5	9.3	9.7	10.2	9.4	10.6	11.5	11.1
Kiandra	1957-1972	11.1	11.3	10.3	7.6	5.9	5.4	4.7	5.2	5.5	7.3	8.1	10.3	7.3
Marble Bar	1957-1971	20.4	20.8	17.8	12.6	9.5	10.3	7.8	7.6	7.8	9.1	11.0	15.0	11.9
Melbourne	1907-1971	13.1	14.1	13.3	11.7	10.3	9.3	8.9	9.1	9.5	10.5	11.3	12.5	11.1
Mildura	1957-1971	13.6	13.7	13.1	11.7	10.3	9.0	8.7	9.0	9.9	10.4	10.8	11.9	10.8
Mundiwindi	1957-1972	13.1	14.4	11.8	10.6	8.5	8.8	7.2	6.8	6.7	6.4	8.2	10.2	8.9
Perth	1911-1940	14.8	14.7	14.7	13.4	12.4	11.4	10.9	10.7	11.6	11.7	12.7	13.9	12.7
Sydney	1876-1971	18.8	19.2	18.3	15.0	11.9	10.2	9.6	9.5	11.3	13.0	15.0	17.6	13.6
Thursday Island	1957-1971	30.2	30.4	30.3	29.0	28.0	25.8	24.1	24.5	24.7	26.1	28.0	29.6	27.6
Townsville	1957-1971	26.1	27.3	25.4	22.1	18.2	15.3	14.1	15.7	16.7	19.7	22.9	24.6	20.3

AVERAGE RELATIVE HUMIDITY AT 9 A.M.

(per cent)

Station	Period of record	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Adelaide	1868-1971	41	43	47	56	67	75	76	70	60	51	45	40	56
Alice Springs	1957-1971	30	32	35	44	54	62	56	43	33	24	25	27	35
Armidale	1957-1971	63	68	70	73	77	80	74	73	63	56	54	57	66
Brisbane	1887-1971	66	69	71	71	71	72	70	67	63	60	59	61	67
Broome	1957-1971	69	74	69	56	46	52	48	43	46	54	58	64	58
Canberra	1940-1971	58	65	67	73	83	85	83	78	72	66	57	56	69
Carnarvon	1957-1971	62	59	59	59	60	73	68	63	55	53	55	59	61
Ceduna	1957-1971	49	54	60	61	75	77	80	74	63	49	45	48	59
Charleville	1957-1971	47	49	52	52	62	71	65	55	42	38	34	41	48
Cloncurry	1957-1971	48	54	49	42	45	49	43	34	28	27	28	35	40
Darwin	1882-1971	81	81	80	72	65	63	62	66	68	68	70	75	71
Esperance	1957-1969	61	67	66	71	75	82	83	77	71	63	62	62	69
Halls Creek	1957-1971	48	51	44	31	34	33	29	24	20	23	28	38	34
Hobart	1894-1971	58	62	65	70	75	78	78	73	66	62	58	58	67
Kalgoorlie	1957-1971	43	50	52	58	65	75	74	65	55	46	42	42	54
Katanning	1957-1972	58	65	68	78	78	89	89	89	83	54	51	48	69
Kiandra	1957-1972	63	68	72	75	85	89	88	87	71	64	58	64	71
Marble Bar	1957-1971	40	44	38	31	32	43	36	30	24	21	22	28	32
Melbourne	1907-1971	60	63	66	72	79	83	81	75	68	63	60	60	69
Mildura	1957-1971	49	52	59	69	82	87	88	81	69	56	48	48	63
Mundiwindi	1957-1972	28	35	30	35	40	50	46	37	28	17	19	21	30
Perth	1911-1940	51	51	57	61	70	75	76	71	66	60	52	51	62
Sydney	1876-1971	68	70	74	74	75	76	74	68	66	62	62	64	69
Thursday Island	1957-1971	84	86	85	81	82	80	79	79	75	73	73	77	80
Townsville	1957-1971	69	75	73	68	66	66	64	63	56	58	62	64	65

Sunshine, cloud and fog

Sunshine. Sunshine as treated here refers to bright or direct sunshine. Australia receives relatively large amounts of sunshine although seasonal cloud formations have a notable effect on its spatial and temporal distribution. Cloud cover reduces both incoming and outgoing radiation and thus affects sunshine, air temperature and other climatic elements at the earth's surface. Sunshine amounts at Australian capitals are included in the climatic tables, pages 63-70.

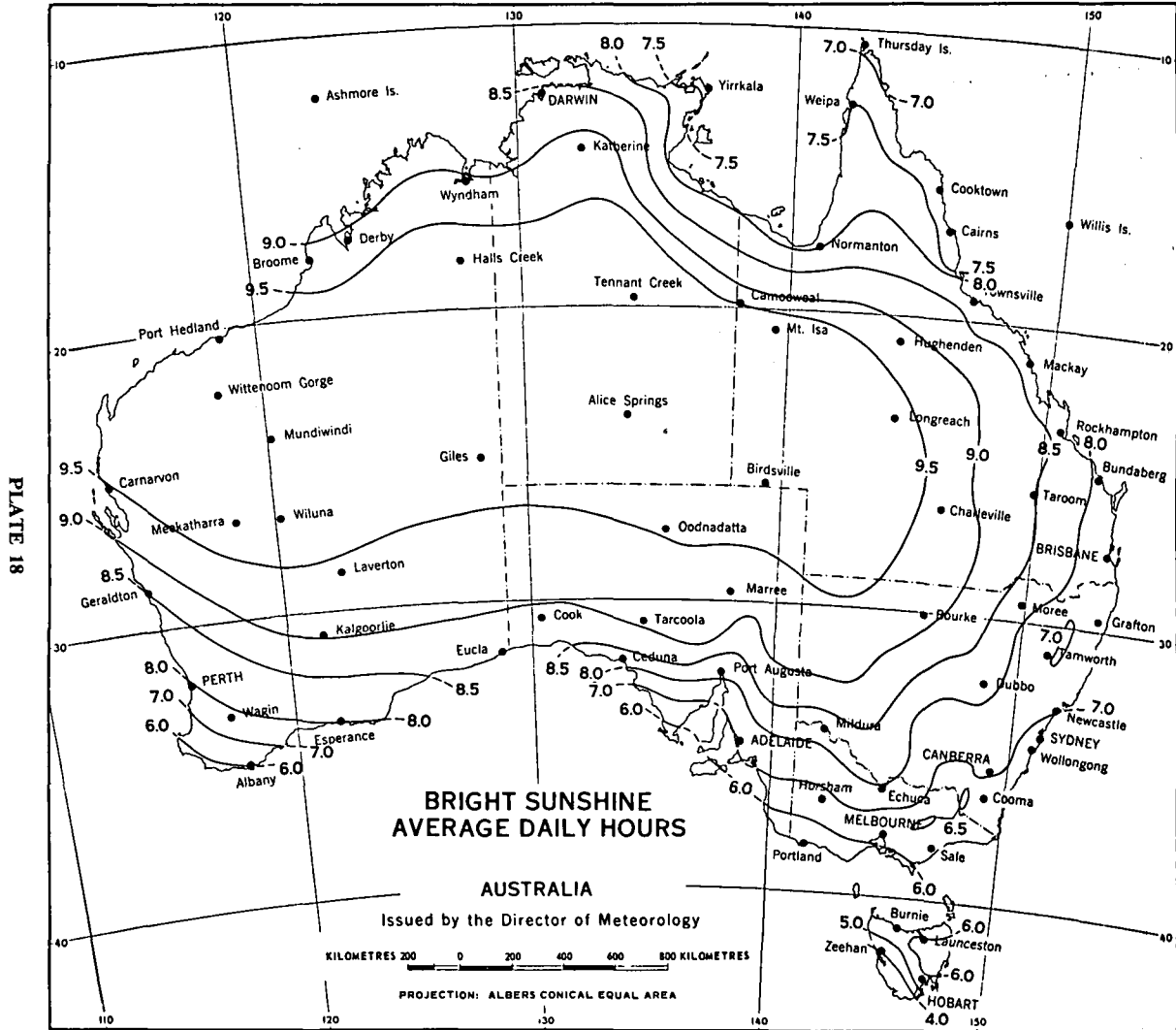
Average daily sunshine (hours) based on all available data to 1971 inclusive, is shown in plate 18, page 53. In areas where there is a sparsity of data, estimates of sunshine derived from cloud data were used. Most of the continent receives more than 3,000 hours of sunshine a year, or nearly 70 per cent of the total possible and in central Australia and the mid-west coast of Western Australia totals slightly in excess of 3,500 hours occur. Totals of less than 1,750 hours occur on the west coast and highlands of Tasmania; this amount is only 40 per cent of the total possible per year (about 4,380 hours).

In southern Australia generally the duration of sunshine is greatest about December when the sun is at its highest elevation and lowest in June when the sun is lowest. In northern Australia sunshine is generally greatest about August-October prior to the wet season and least about January-March during the wet season. The table gives the 20, 50 and 80 percentiles of daily bright sunshine for the months of June and December at selected stations. These values give an indication of the variability of daily sunshine hours. Perth for example, has a high variability of daily sunshine hours in the wet month of June (160 per cent) and a low variability in the dry month of December (30 per cent). Darwin has a low variability in the dry season month of June (15 per cent) and a high variability in the wet season month of December (85 per cent).

BRIGHT SUNSHINE, VARIABILITY OF DAILY HOURS, JUNE AND DECEMBER
(20, 50 and 80 percentile values)

Station	Period of record	June			December		
		Percentile			Percentile		
		20	50	80	20	50	80
Adelaide	1955-71	1.0	3.5	7.5	4.0	9.0	12.5
Alice Springs	1954-71	5.5	9.5	10.0	6.5	11.0	12.5
Brisbane	1951-71	2.5	8.0	9.5	4.0	8.5	11.5
Canberra	1957-71	2.0	5.0	7.0	4.0	9.5	12.0
Darwin	1951-71	9.0	10.0	10.5	3.5	7.5	10.0
Hobart	1955-71	0.5	3.0	6.0	2.5	7.0	10.5
Melbourne	1955-70	0.5	2.5	6.0	3.0	7.5	11.5
Perth	1945-71	1.0	4.0	7.5	8.5	11.0	12.0
Sydney	1955-71	0.5	6.0	8.0	1.5	7.5	11.0
Townsville	1957-71	4.5	9.0	10.0	5.0	9.5	11.0

Cloud. Seasonal changes in cloudiness vary with the distribution of rainfall. In the southern parts of the continent, particularly in the coastal and low lying areas, the winter months are generally more cloudy than the summer months. This is due to the formation of extensive areas of stratiform cloud and fog during the colder months, when the structure of the lower layers of the atmosphere favours the physical processes resulting in this type of cloud. Particularly strong seasonal variability of cloud cover exists in northern Australia where skies are clouded during the summer wet season and mainly cloudless during the winter dry season. Cloud coverage is greater near coasts and on the windward slopes of the eastern uplands of Australia and less over the dry interior.



The average monthly cloud amounts at Australian capitals are included in the climatic tables, pages 63–70. Darwin has the least average daily coverage of 3.2 eighths and Hobart the highest daily average of 5.0 eighths. The highest daily average for any month occurs at Darwin (5.9 eighths for January) and the lowest average daily is also at Darwin (1.1 eighths for August).

Fog. The formation of fog depends on the occurrence of favourable meteorological elements—mainly temperature, humidity, wind and cloud cover. The nature of the local terrain is important for the development of fog and there is a tendency for this phenomenon to persist in valleys and hollows. The incidence of fog may vary significantly over distances as short as one kilometre.

Fog in Australia tends to be greater in the south than the north, although parts of the east coastal areas are relatively fog prone even in the tropics. Incidence is much greater in the colder months, particularly in the eastern uplands. Fog may persist during the day but rarely until the afternoon over the interior. The highest fog incidence at a capital city is at Canberra which has an average of 46 days per year on which fog occurs, 28 of which are in the period May to August. Brisbane averages 22 days of fog per year, 17 of which occur between April and September. Darwin averages only 3 days per year, June to September.

Global radiation

Global (short wave) radiation includes that radiation energy reaching the ground directly from the sun and that received indirectly from the sky, scattered downwards by clouds, dust particles, etc.

Plate 19, page 55 shows the average global radiation received per day at the earth's surface. The table below shows the variability of daily global radiation for June and December (1968–72) at selected stations.

GLOBAL RADIATION: VARIABILITY OF DAILY AMOUNTS FOR JUNE AND DECEMBER (mWh. cm⁻²)

(20, 50 and 80 percentile values in milliwatt hours per square centimetre (1964–68))

Station	June			December		
	Percentiles			Percentiles		
	20	50	80	20	50	80
Alice Springs	360	450	480	580	760	810
Darwin	520	570	590	440	570	620
Melbourne	130	190	240	470	640	780
Perth	180	260	330	770	870	910
Townsville	360	490	510	550	710	760
Williamstown	210	270	330	490	650	780

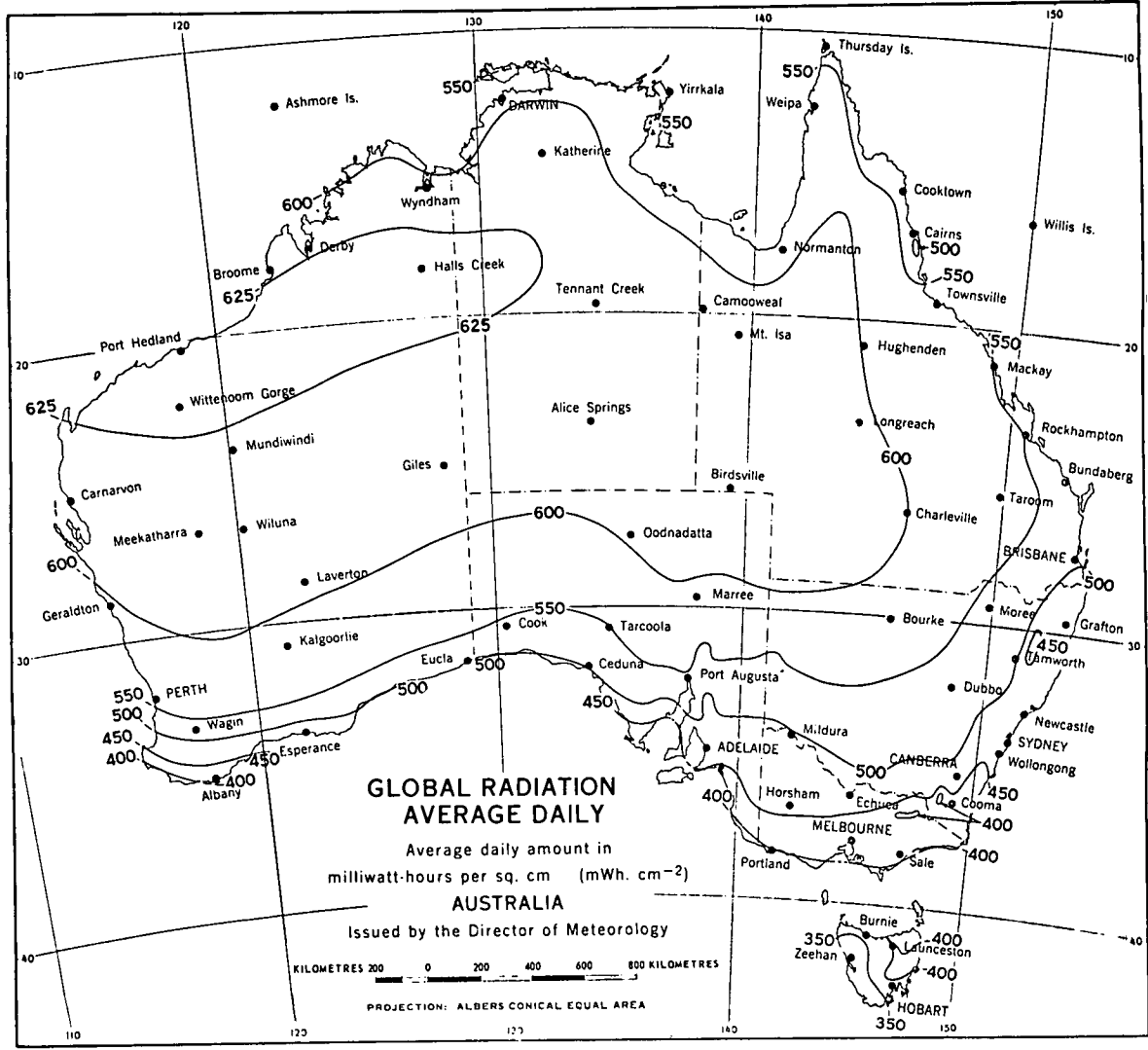
A high correlation exists between daily global radiation (plate 19, page 55) and daily hours of sunshine (plate 18, page 53). On the north-west-coast around Port Hedland, where average daily global radiation is the highest for Australia (640 milliwatt hours), average daily sunshine is also highest, being approximately 10 hours. Sunshine is more dependent on variations in cloud coverage than is global radiation, since the latter includes diffuse radiation from the sky as well as direct radiation from the sun. An example is Darwin where in the dry month of July sunshine approaches twice that of the wet (cloudy) month of January but global radiation figures for the two months are comparable.

Evaporation

Evaporation is determined by measuring the amount of water evaporated from a free water surface exposed in a standard tank or pan. Evaporation from a free water surface depends on a number of climatic elements, mainly temperature, humidity and wind. Evaporation data are useful in water conservation studies and in estimating potential evapotranspiration for irrigation and plant growth studies. In Australia, where surface water storage is vital over large areas, evaporation is a highly significant element.

Average annual tank evaporation is mapped in plate 20, page 56 which shows a variation from 500 millimetres over the highlands of Tasmania to 3,500 millimetres in the dry north of South Australia with about 75 per cent of the continent exceeding 2,000 millimetres. In about 75 per cent of the continent, comprising most inland areas, rainfall does not exceed evaporation loss from a free water surface in any month of the year. In the central and north-west parts of the continent the annual evaporation exceeds ten times the rainfall.

PLATE 19



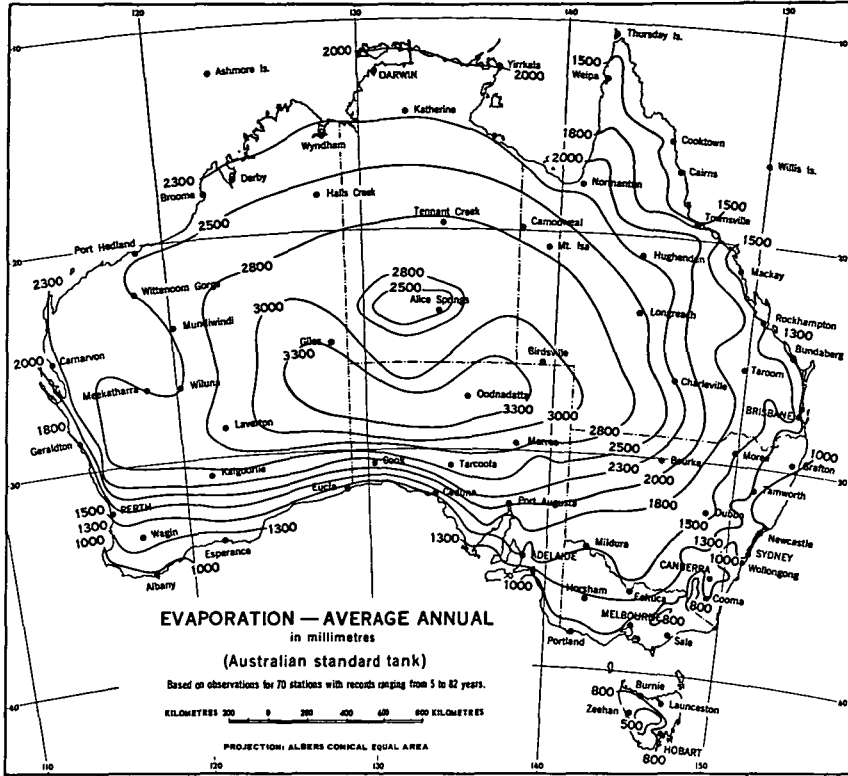


PLATE 20

Winds

The mid-latitude anticyclones are the chief determinants of Australia's two main prevailing wind streams. In relation to the west-east axes of the anticyclones these streams are easterly to the north and westerly to the south. The cycles of development, motion and decay of low pressure systems to the north and south of the anticyclones result in diversity of wind flow patterns. Wind variations are greatest around the coasts where diurnal land and sea breeze effects are important.

Orography affects the prevailing wind pattern in various ways such as the channelling of winds through valleys, deflection by mountains and cold air drainage from highland areas. An example of this channelling is the high frequency of north-west winds at Hobart caused by the north-west south-east orientation of the Derwent River Valley.

Average wind speeds and prevailing directions at Australian capitals are included in the climatic tables, pages 63-70. Perth is the windiest capital with an average wind speed of 15.6 kilometres per hour; Canberra is the least windy with an average speed of 5.8 kilometres per hour.

The highest wind speeds and wind gusts recorded in Australia have been associated with tropical cyclones. The highest recorded gust was 232 kilometres per hour during a cyclone at Onslow, Western Australia in 1963 and gusts reaching 180 kilometres per hour have been recorded on several occasions in northern Australia with cyclone visitations. The highest gusts recorded at Australian capitals were 157 kilometres per hour at Darwin and 156 kilometres per hour at Perth.

Estimates of the extreme wind gust expected in a given return period* have been derived for places throughout Australia (Whittingham, 1964). On this basis, for example, Darwin would have an extreme gust for a return period of 10 years of 140 kilometres per hour, Melbourne 135 and Perth 130.

*Return period is the average period between successive occurrences equal to, or greater than, a given speed. For example the extreme wind gust for a return period of 10 years can be expected to occur once in 10 years on the average.

Floods

Widespread flood rainfall may occur anywhere in Australia but has a higher incidence in the north and in the eastern coastal areas. It is most economically damaging along the shorter streams flowing from the eastern uplands eastward to the seaboard of Queensland and New South Wales. These flood rains are notably destructive in the more densely populated coastal river valleys of New South Wales—the Tweed, Richmond, Clarence, Macleay, Hunter and Nepean-Hawkesbury—all of which experience relatively frequent flooding. Although chiefly summer rains, they may occur in any season.

The great Fitzroy and Burdekin river basins of Queensland receive flood rains during the summer wet season. Much of the run-off due to heavy rain in north Queensland west of the eastern uplands flows southward through the normally dry channels of the network of rivers draining the interior lowlands into Lake Eyre. This widespread rain may cause floods over an extensive area, but it soon seeps away or evaporates, rarely reaching the lake in any quantity. The Condamine and other northern tributaries of the Darling also carry large volumes of water from flood rains south through western New South Wales to the Murray and flooding occurs along their courses at times.

Flood rains occur at irregular intervals in the Murray-Murrumbidgee system of New South Wales and Victoria, the coastal streams of southern Victoria and the north coast streams of Tasmania.

Droughts

Drought in general terms refers to an acute water shortage. This is normally due to rainfall deficiency but with other parameters contributing to the actual water availability. The best single measure of water availability in Australia is rainfall, although parameters such as evaporation and soil moisture are significant, or even dominant, in some situations.

Droughts have severe economic effects in Australia and during the years 1864–1973 inclusive there have been at least eight major droughts affecting the greater part of Australia and at least seven other droughts of lesser severity affecting extensive areas (Foley 1957 (ii)). The droughts of 1895–1903 and 1958–68 were probably the most disastrous in their effects on primary industry.

Gibbs and Maher (1967), having defined a drought year at a certain station as one with the year's rainfall in the first decile range, concluded that the occurrence of areas in the first decile range on annual decile maps for the period 1885–1965 corresponded rather well with drought areas discussed by Foley (1957).

One method of assessing the incidence of rainfall deficiency is the analysis of the distribution of annual rainfalls less than the median. The range between the 50 percentile (median) and the 10 percentile gives a measure of the variation in magnitude of annual rainfalls less than the median. The ratio of this range to the 30 percentile value may be used as an index of rainfall deficiency incidence or drought incidence, i.e.:

$$\text{Index of drought incidence} = \left\{ \frac{50 - 10}{30} \right\} \text{ percentile}$$

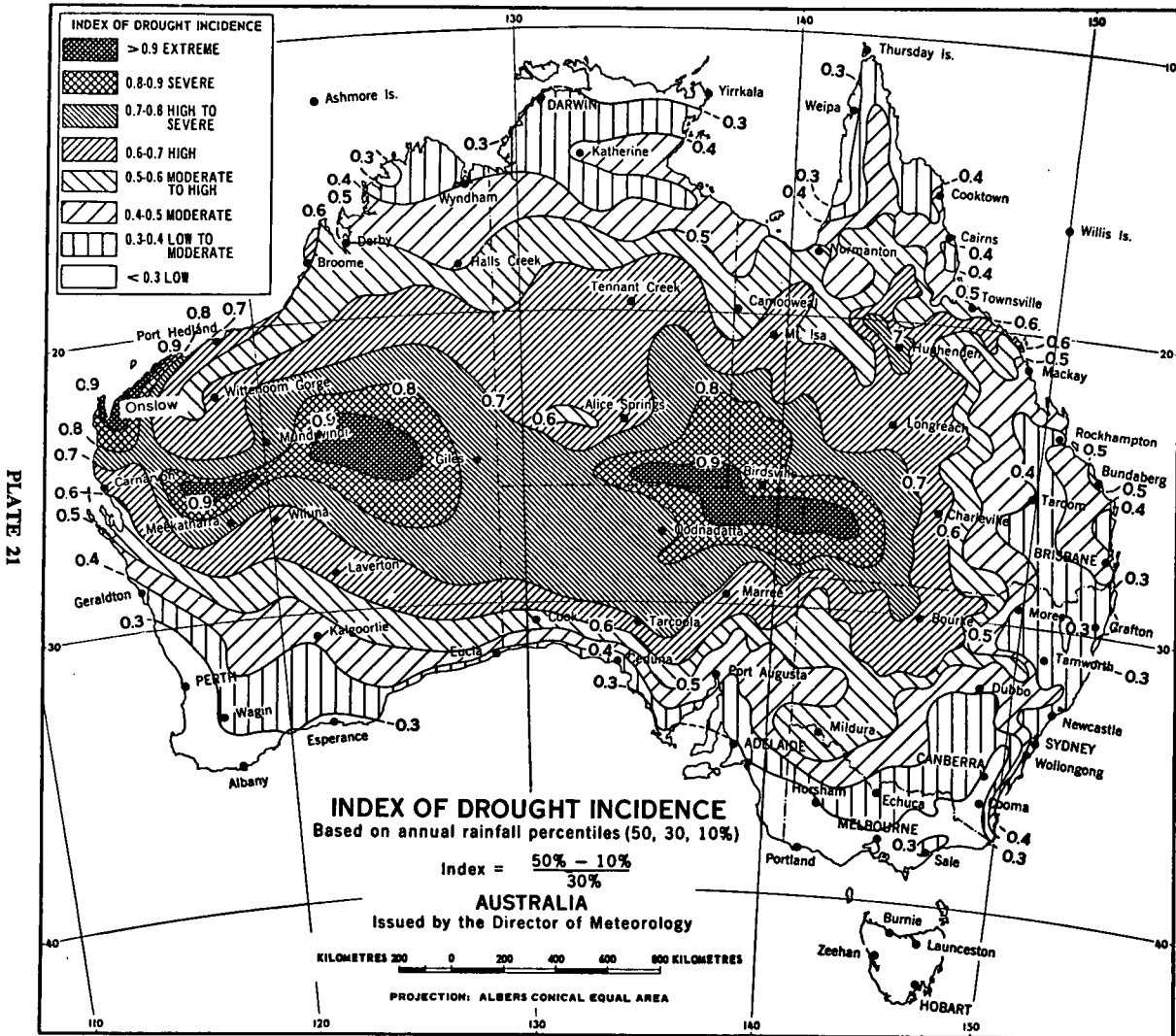
For example, the indexes for Onslow (north-west coast of Western Australia) and similarly, for Cape Otway (south coast of Victoria) are derived thus:

$$\text{Index for Onslow} = \left\{ \frac{222 - 64}{145} \right\} \text{ mm} = 1.09$$

$$\text{Index for Cape Otway} = \left\{ \frac{865 - 716}{801} \right\} \text{ mm} = 0.19$$

Plate 21, page 58 shows the distribution of the index of drought incidence over Australia. The intrusions of high index values from the interior to the central coast of Queensland and across western New South Wales are noteworthy. The extreme values on the north-west coast of Western Australia are among the highest in Australia (e.g. Onslow 1.09) due to the dependence of the rainfall on random cyclone tracks.

The Bureau of Meteorology commenced the issue of *Drought Reviews* in June 1965. These reviews provide a summary of serious rainfall deficiencies and are issued monthly when serious or severe deficiencies exist in any of the rainfall districts. The deficiency criteria are based on monthly rainfall decile analyses. A review of droughts in Australia to 1968 is included in Year Book No. 54, 1968. Summaries of subsequent drought periods may be obtained from the *Drought Reviews*.



Climatic discomfort

In Australia climatic discomfort is significant in most areas. During the summer half of the year (November–April) prolonged high temperatures and humidity around the northern coasts and high temperatures over the inland cause physical stress. In winter, low temperatures and strong cold winds over the interior and southern areas can be severe for relatively short periods. However, cold stress does not cause prolonged physical hardship in Australia at altitudes lower than 1,000 metres, that is, over more than 99 per cent of the continent.

The climatic variables determining physical discomfort are primarily air temperature, vapour pressure and wind. The complete assessment of physical discomfort also requires analyses of such parameters as thermal conductivity of clothing, vapour pressure at the skin and the metabolic heat rate arising from activity of the human body. The cooling system of the human body depends on evaporation of moisture to keep body temperature from rising to lethal levels as air temperature rises. Defining criteria of discomfort is difficult because personal reactions to the weather differ greatly according to a number of variables including health, age, clothing, occupation and acclimatisation (Ashton 1964). However, climatic strain has been measured experimentally and discomfort indexes based on the average response of subjects under specified conditions have been derived.

Effective Temperature. The effective temperature with respect to any environmental combination of temperature, humidity and wind is defined as the temperature of still, saturated air in which a normally clothed sedentary worker would feel the same level of comfort or discomfort.

Environment studies carried out at the research laboratories of the American Society of Heating, Refrigerating and Air Conditioning Engineers established values of effective temperature corresponding to various combinations of temperature, humidity and air movement. The results were published as a series of research reports commencing in 1923, and have been widely used to measure climatic discomfort (*see* 1960 report of the Society).

Normally clothed sedentary workers are mostly comfortable within a range of effective temperatures between 15°C and 27°C (air movement 5–8 metres per minute). At effective temperatures greater than 27°C, the majority of people feel heat discomfort and when less than 15°C they feel cold discomfort.

The table below contains the annual average frequency of effective temperature at 3 p.m. within specified limits at selected stations. The figures provide comparisons of daily occurrence of afternoon discomfort for the given environmental conditions.

CLIMATIC DISCOMFORT: EFFECTIVE TEMPERATURE

Annual average frequency of days when effective temperature at 3 p.m. is lower than 15°C (cold discomfort), within 15–27°C (comfort), and higher than 27°C (heat discomfort). Indoors, normally clothed sedentary workers, air movement 5–8 metres per minute.

Station	Period of record	Average days per year		
		Less than 15°C	15–27°C	Greater than 27°C
Adelaide	1955–72	128	234	3
Albury	1962–71	141	220	4
Alice Springs	1955–67	39	300	26
Brisbane	1951–70	6	356	3
Broome	1941–71	0	225	140
Canberra	1940–72	172	192	1
Carnarvon	1945–72	1	345	19
Ceduna	1955–71	77	279	9
Charleville	1942–72	28	316	21
Cloncurry	1940–72	1	268	96
Darwin	1955–69	0	225	140
Hobart	1944–67	239	126	0
Kalgoorlie	1940–72	66	281	18
Marble Bar	1957–71	0	220	145
Melbourne	1955–71	155	207	3
Mildura	1946–72	95	258	12
Perth	1944–71	57	302	6
Rockhampton	1940–72	2	337	26
Sydney	1955–72	69	295	1
Townsville	1941–69	0	333	32
Woomera	1954–72	73	279	13

Heat discomfort is greatest in the north-west, where Marble Bar averages 145 days of high heat discomfort annually; and least in the south-east, where Hobart has only one day every five years. Cold discomfort is least in the north, where Townsville has one day of cold discomfort in ten years; it is greatest in the south-east, where Hobart has 239 days annually when the effective temperature is sufficiently low to cause discomfort. By the suitable choice of clothing discomfort can be decreased significantly on cold days. On cold days also, workers tend to take opportunities to move around, thus increasing metabolic heat rates.

Effective temperature is a useful index but its application is limited because available criteria relate only to indoor workers in sedentary occupations. Furthermore, at lower air temperatures the effective temperature gives excessive weight to humidity.

Relative strain index. The relative strain index derived by Lee and Henschel (1963) has been applied in Australia to measure heat discomfort (Hounam, 1969, Gaffney 1973). The results obtained with Australian data are useful for purposes of comparison but interpretation of the actual results is tentative until empirical environmental studies are carried out in this region. In addition to temperature, humidity and air movement the relative strain index has facilities for incorporation of metabolic heat rate, net radiation and insulation of clothing. It has the advantage of being applicable to manual workers under shelter and expending energy at various metabolic heat rates.

The discomfort map plate 22, page 61 shows the average number of days per year when the relative strain index exceeds 0.3 discomfort level at 3 p.m. assuming standard conditions as defined. Maximum discomfort generally occurs around 3 p.m. on days of high temperature.

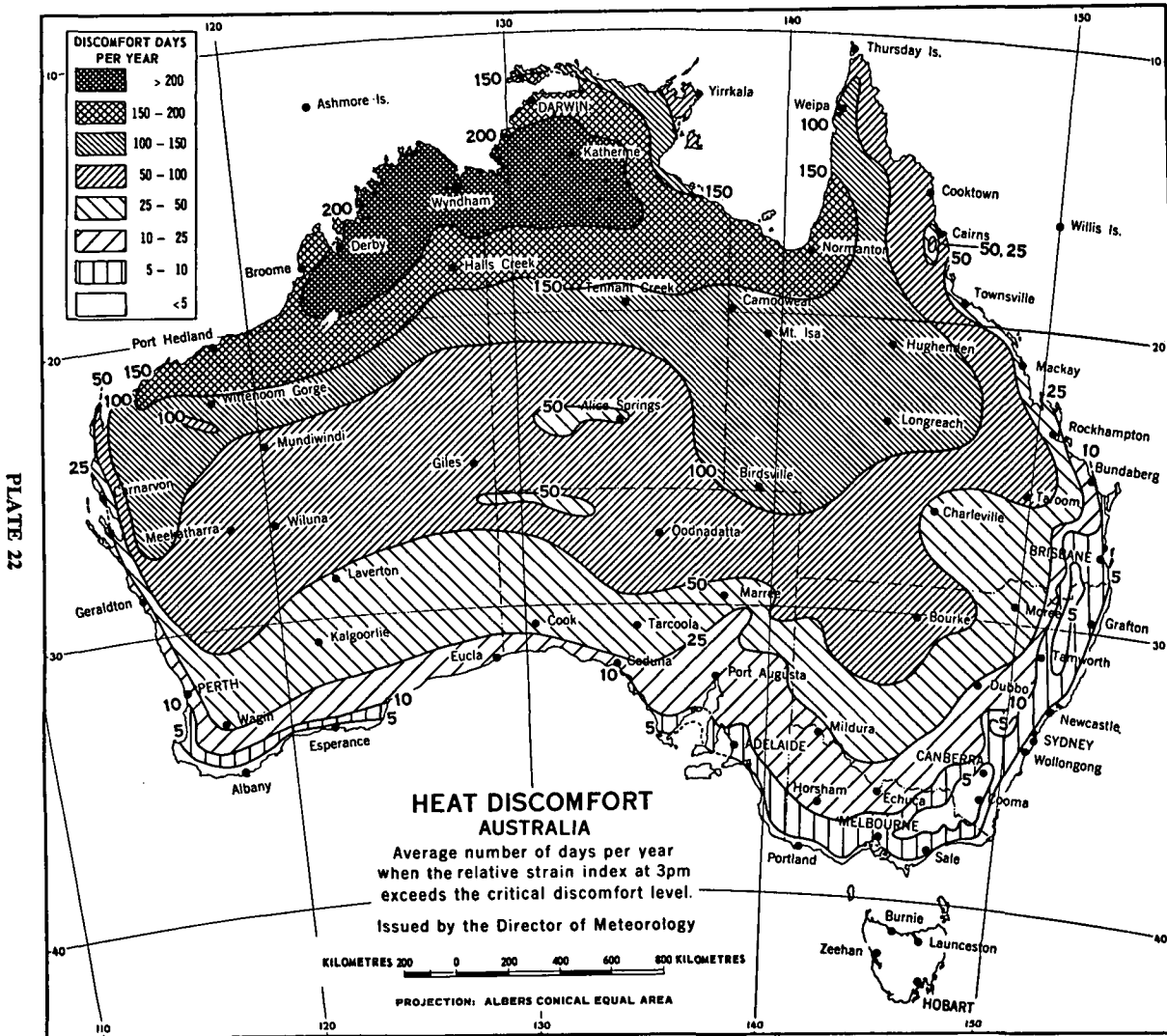
A notable feature is the lower frequency of days of discomfort in Queensland coastal areas in comparison with the northern coastal areas of Western Australia. This is due to the onshore winds prevailing on the Queensland coast and the cooling effect of the adjacent eastern uplands. Lower frequencies on the Atherton Plateau in the tropics near Cairns show the advantage of altitude. Relatively low heat discomfort frequencies are evident in upland and coastal areas of south-east Australia. Tasmania is entirely in the zone of least discomfort experiencing on the average less than one day of heat discomfort per year. In Western Australia most of the Kimberley region in the north lies in the highest discomfort zone with the frequencies decreasing southwards to a strip of lowest discomfort towards the south-west coast. A steep gradient of discomfort frequency on the west coast shows the moderating effect of sea breezes.

The average annual frequency of days when the relative strain index at 3 p.m. exceeds specified discomfort levels is shown in the table below. The Sydney frequencies were derived from observations at the Regional Office of the Bureau of Meteorology, which is representative of eastern coastal suburbs; frequencies are higher in western suburbs. The Melbourne frequencies were derived from observations at the Bureau's Regional Office, which may be taken as fairly representative of inner northern and eastern suburbs; frequencies are lower in bayside suburbs. Similarly in other capital city areas significant variations occur with distance from the coast, for example, at Perth.

HEAT DISCOMFORT

Average number of days per year when relative strain index (RSI) at 3 p.m. exceeds 0.3 (discomfort) and 0.4 (high discomfort) under standard conditions (indoors, manual activities, light clothing, air movement 60 metres per minute).

Station	Period of record	Greater than	
		0.3 RSI	0.4 RSI
Adelaide	1955-72	7	1
Albury	1962-71	8	1
Alice Springs	1955-67	50	4
Brisbane	1951-69	6	<1
Broome	1940-72	155	48
Canberra	1940-72	2	<1
Carnarvon	1945-72	23	3
Ceduna	1955-71	16	3
Charleville	1942-72	42	3
Cloncurry	1940-72	126	28
Darwin	1955-69	165	23
Hobart	1944-67	<1	<1
Kalgoorlie	1939-72	30	5
Marble Bar	1957-71	173	69
Melbourne	1955-71	6	1
Mildura	1946-72	19	3
Perth	1944-72	12	1
Rockhampton	1940-72	33	5
Sydney	1955-72	2	<1
Townsville	1941-69	36	4
Woomera	1954-72	25	3



The variability of the relative strain index in January by percentiles for 3 p.m. values at selected stations is shown in the table below. Melbourne has a significantly higher discomfort variability than Sydney, and Adelaide is more variable than Brisbane.

HEAT DISCOMFORT VARIABILITY, JANUARY

Relative strain index values at 3 p.m. not exceeded by 20, 50 and 80 per cent of all values. Indoors, lightly clothed manual workers, air movement 60 metres per minute.

Station	Period of record	Percentiles		
		20	50	80
Adelaide	1955-72	<0.10	0.10	0.25
Albury	1962-71	0.10	0.15	0.25
Alice Springs	1955-67	0.25	0.30	0.35
Brisbane	1951-70	0.10	0.15	0.25
Broome	1940-72	0.30	0.40	0.45
Canberra	1940-72	<0.10	0.10	0.20
Carnarvon	1945-72	0.15	0.20	0.30
Ceduna	1955-71	<0.10	0.10	0.25
Charleville	1942-72	0.20	0.30	0.35
Cloncurry	1940-72	0.30	0.35	0.40
Darwin	1955-69	0.25	0.35	0.40
Hobart	1944-67	<0.10	<0.10	0.10
Kalgoorlie	1939-72	0.15	0.25	0.35
Marble Bar	1957-71	0.35	0.45	0.50
Melbourne	1955-71	<0.10	0.10	0.25
Mildura	1946-72	0.10	0.20	0.30
Perth	1944-72	<0.10	0.15	0.25
Rockhampton	1940-72	0.20	0.25	0.35
Sydney	1955-72	<0.10	0.10	0.15
Townsville	1941-69	0.20	0.30	0.35
Woomera	1954-72	0.15	0.25	0.35

At inland places, relatively low night temperatures have recuperative effects after hot days. Marble Bar, Western Australia (150 km south-east of Port Hedland) for example, has median night minimum temperatures 5-10° C lower than Darwin, except in December-February. Even in this period although median minima at both stations are around 25° C, Marble Bar has median vapour pressures and relative humidities much lower than Darwin (by 10 millibars and 30 per cent respectively).

Acclimatised people would suffer discomfort less frequently than shown by the relative strain index figures. For example, Australians living in the north evidently experience less discomfort at high air temperatures than those in the south, if humidities are comparable.

Both direction and speed of prevailing winds are significant for the ventilation of buildings. In the tropics windward slopes allow optimal air movement, for instance, enabling more comfortable ventilation to be obtained. Regular sea breezes such as those experienced at Perth reduce discomfort and their full benefit may not be experienced until after 3 p.m. on some days.

Climatic data for capital cities

The averages and extremes for a number of elements determined from long-period observations at the Australian capitals to 1973 inclusive, are given in the following pages. Extremes generally cover all available data whereas averages may only refer to present sites.

CLIMATIC DATA: PERTH, WESTERN AUSTRALIA

(Lat. 31° 57' S., Long. 115° 52' E. Height above M.S.L. 15 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 22 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds			
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction				9 a.m.	3 p.m.	9 a.m., 3 p.m., (a)	No. clear days
					9 a.m.	3 p.m.						
No. of years of record .	89	30(b)	73	58	30(b)	30(b)	75	77	30(b)	30(b)		
January	1,012.6	17.5	42.3 27/98	81	E	SSW	264	0.9	2.3	14		
February	1,013.0	17.2	40.8 4/73	87	ENE	SSW	223	0.7	2.5	13		
March	1,015.2	16.2	34.6 6/13	113	E	SSW	195	0.7	2.8	12		
April	1,017.9	13.7	50.7 25/00	101	ENE	SSW	119	0.8	3.4	9		
May	1,017.9	13.5	44.5 8/73	119	NE	WSW	73	1.8	4.3	6		
June	1,017.6	13.5	48.6 17/27	129	N	NW	48	1.8	4.7	5		
July	1,018.9	14.2	53.9 20/26	137	NNE	W	48	1.4	4.5	5		
August	1,018.8	15.1	51.3 15/03	156	N	WNW	64	1.2	4.5	6		
September	1,018.4	15.1	45.9 11/05	109	ENE	SSW	91	0.7	3.9	8		
October	1,017.0	16.1	43.0 6/16	105	SE	SW	140	0.7	3.8	8		
November	1,015.5	17.2	41.4 18/97	101	E	SW	194	0.7	3.1	9		
December	1,013.4	17.7	41.2 6/22	103	E	SSW	247	1.0	2.6	13		
Year { Totals . . . . .	..	..	..	..	..	..	1,706	12.4	..	108
Year { Averages	1,016.4	15.6	..	..	E	SSW	..	..	3.5	..
Year { Extremes . . . . .	..	..	53.9	156	E	..	..	..	..	..

(a) Scale 0-8. (b) Standard thirty years normal (1911-1940).

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record .	77	77	77	77	77	63(a)	75	76
January	29.5	17.6	23.5	43.7 29/56	9.2 20/25	80.7 22/14	4.2 20/25	10.4
February	29.8	17.8	23.7	44.6 8/33	8.7 1/02	78.7 4/34	4.3 1/13	10.0
March	27.7	16.5	22.1	41.3 14/22	7.7 8/03	75.0 19/18	2.6 (b)	8.8
April	24.4	14.0	19.2	37.6 9/10	4.1 20/14	69.4 8/16	-0.7 26/60	7.2
May	20.6	11.5	16.1	32.4 2/07	1.3 11/14	63.3 4/25	-3.9 31/64	5.9
June	18.1	9.9	14.1	27.6 2/14	1.6 22/55	57.5 9/14	-3.4 27/46	4.8
July	17.2	8.9	13.1	24.7 21/21	1.2 7/16	56.2 13/15	-3.8 30/20	5.3
August	17.8	9.1	13.4	27.8 21/40	1.9 31/08	62.3 29/21	-3.0 18/66	6.2
September	19.3	10.1	14.7	32.7 30/18	2.6 6/56	67.5 29/16	-2.7 (c)	7.1
October	21.1	11.4	16.3	37.3 29/67	4.2 6/58	71.8 19/54	-1.2 16/31	8.2
November	24.6	13.8	19.2	40.3 24/13	5.6 1/04	75.0 30/25	-1.1 6/71	9.6
December	27.3	16.0	21.5	42.3 31/68	8.6 29/57	76.0 11/27	3.3 29/57	10.5
Year { Averages	23.1	13.1	18.1	..	..	80.7	..	7.8
Year { Extremes . . . . .	..	..	..	44.6	1.2	80.7	-3.9	..

(a) Records discontinued 1963. (b) 8/1903 and 16/1967. (c) 8/1952 and 6/1956.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)			Rainfall (millimetres)					Fog Mean No. days
	Mean	Rel. hum. (%) at 9 a.m.		Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
		Mean	Highest mean							Lowest mean
No. of years of record .	30(a)	30(a)	77	77	98	98	98	98	77
January	14.8	51	63	41	8	3	55 1879	Nil (b)	44 27/79
February	14.7	51	65	43	11	3	166 1955	Nil (b)	87 17/55
March	14.7	57	66	46	20	4	145 1934	Nil (b)	77 9/34
April	13.4	61	75	51	46	8	149 1926	Nil 1920	67 30/04
May	12.4	70	81	60	124	14	308 1879	14 1964	76 17/42
June	11.4	75	85	68	186	17	476 1945	55 1877	99 10/20
July	10.9	76	88	69	174	18	425 1958	61 1876	76 4/91
August	10.7	71	83	62	139	18	318 1945	12 1902	74 14/45
September	11.6	66	75	58	81	14	199 1923	9 1916	47 18/66
October	11.7	60	75	52	55	12	200 1890	1 1969	50 4/67
November	12.7	52	66	41	21	6	71 1916	Nil 1891	39 29/56
December	13.9	51	63	39	14	4	81 1951	Nil (b)	47 3/51
Year { Totals . . . . .	..	..	..	..	879	121	..	..	..
Year { Averages	12.7	62	..	..	..	..	..	..	..
Year { Extremes . . . . .	..	..	88	39	..	..	476	Nil (b)	99

(a) Standard thirty years normal (1911-1940). (b) Various years.

Figures such as 27/98, 29/56, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATIC DATA: DARWIN, NORTHERN TERRITORY

(Lat. 12° 28' S., Long. 130° 51' E. Height above M.S.L. 30 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 36 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of record . . .	90	20	..	22(b)	..	..	14	35	35	35
January	1,006.2	9.3	..	106	..	NW	164	12.9	5.9	1
February	1,006.3	10.6	..	101	..	W	141	10.2	5.8	1
March	1,007.2	7.5	..	157	..	W	161	10.6	5.2	3
April	1,009.3	8.8	..	67	..	SE	164	4.0	2.9	10
May	1,010.9	9.6	..	62	..	SE	172	0.5	2.0	16
June	1,012.2	10.1	..	64	..	SE	172	0.0	1.4	19
July	1,012.8	8.9	..	62	..	SE	176	0.0	1.3	20
August	1,012.6	8.6	..	72	..	SE	182	0.0	1.1	20
September	1,011.7	8.6	..	64	..	ENE	206	1.0	1.8	16
October	1,010.5	9.8	..	85	..	NE	232	5.3	2.7	9
November	1,008.7	8.6	..	117	..	NW	211	11.8	3.9	4
December	1,006.9	9.8	..	106	..	NW	189	14.2	4.9	2
Year { Totals . . . . .	..	..	..	..	..	..	2,170	70.5	..	121
Year { Averages	1,009.6	9.2	..	..	..	SE	..	..	3.2	..
Year { Extremes . . . . .	..	..	..	157	..	..	..	..	..	..

(a) Scale 0-8. (b) Several incomplete years.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record . . .	90	90	90	92(a)	92(a)	26(b)	..	21
January	32.2	25.0	28.6	37.8 2/82	20.0 20/92	75.6 26/42	..	5.9
February	31.9	24.8	28.4	38.3 20/87	17.2 25/49	73.2 (c)	..	5.9
March	32.4	24.8	28.6	38.9 (d)	19.2 31/45	74.3 23/38	..	6.8
April	33.1	24.2	28.7	40.0 7/83	16.0 11/43	72.8 1/38	..	8.6
May	32.3	22.2	27.4	39.1 8/84	(e)14.2 28/67	71.2 5/20	..	9.3
June	30.9	20.4	25.7	39.0 17/37	12.1 23/63	68.5 2/16	..	9.7
July	30.4	19.6	25.1	36.7 17/88	10.4 29/42	68.9 28/17	..	9.8
August	31.4	20.8	26.1	37.0 30/71	13.6 11/63	69.1 28/16	..	10.4
September	32.7	23.2	27.9	38.9 20/82	16.7 9/63	69.5 (f)	..	10.0
October	33.6	25.0	29.3	40.5 17/92	19.4 8/66	71.4 30/38	..	9.5
November	33.8	25.3	29.6	39.6 9/84	19.3 4/50	77.0 14/37	..	8.6
December	33.2	25.3	29.3	38.9 20/82	18.3 4/60	76.2 26/23	..	7.1
Year { Averages	32.3	23.3	27.9	..	..	..	..	8.5
Year { Extremes . . . . .	..	..	..	40.5 17/10/1892	10.4 29/7/1942	77.0 14/11/37	..	..

(a) Years 1882-1941 at Post Office, 1942-1966 at Aerodrome; 1967-1971 at Regional office; sites not strictly comparable. (b) Records discontinued 1942. (c) 5/1938 and 23/1938. (d) 26/1883 and 27/1883. (e) Recorded at Darwin Aerodrome. All other Statistics from 1967 to 1971 at Regional Office. (f) 28/1916 and 3/1921.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)				Fog Mean No. days	
		Mean	Highest mean	Lowest mean	Mean mthly	Greatest monthly	Least monthly	Greatest in one day		
No. of years of record . . .	85(a)	90	57(b)	57(b)	86(c)	74	107(d)	107(d)	107(d)	35
January	31.1	81	89	69	391	19	746 1974	68 1906	296 7/97	0.0
February	31.1	81	88	71	330	18	815 1969	13 1931	279 18/55	0.0
March	30.7	80	84	69	260	17	595 1965	21 1911	182 6/19	0.0
April	27.0	72	80	60	103	8	603 1891	Nil 1950	158 4/59	0.0
May	21.8	65	76	49	14	1	299 1968	Nil (e)	56 6/22	0.0
June	18.7	63	75	52	3	0	73 1973	Nil (e)	36 10/02	0.4
July	17.6	62	71	47	1	0	65 1900	Nil (e)	43 2/00	1.1
August	20.6	66	73	53	2	0	84 1947	Nil (e)	80 22/47	0.8
September	24.7	68	73	54	13	2	108 1942	Nil (e)	71 21/42	0.2
October	27.7	68	72	60	50	5	339 1954	Nil (e)	95 18/56	0.0
November	29.3	70	75	62	126	11	399 1938	10 1870	120 9/51	0.0
December	30.5	75	83	65	243	16	583 1965	25 1934	200 28/10	0.0
Year { Totals . . . . .	..	..	..	..	1,536	97	..	..	..	2.5
Year { Averages	25.9	71	..	..	..	..	..	..	..	..
Year { Extremes . . . . .	..	..	89	47	..	..	815 2/69	Nil (f)	296 7/1/1897	..

(a) Records to 1966 at Aerodrome. (b) 1882 to 1938 at Post Office. (c) 1869 to 1962 at Post Office; 8 years missing. (d) Highest or lowest at either Post Office, Aerodrome or Regional Office Sites. (e) Various years. (f) April to October. Various years. Figures such as 2/82, 26/42, etc., indicate in respect of the month of reference, the day and year of occurrence. Dates in italics relate to nineteenth century.

CLIMATIC DATA: ADELAIDE, SOUTH AUSTRALIA

(Lat. 34° 46' S., Long. 138° 35' E. Height above M.S.L. 43 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)		Wind (height of anemometer 22 metres)				Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds			
			Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction			9 a.m.	3 p.m.	No. clear days	
						9 a.m.						3 p.m.
No. of years of record . . .	117	20(b)	20(b)	55	30(c)	30(c)	5(d)	102	100	58		
January	1,013.2	12.8	32.2 12/70	116	SW	SW	268	1.5	2.9	12.3		
February	1,014.3	12.1	28.8 25/67	106	NE	SW	233	1.1	3.0	10.7		
March	1,017.2	11.4	30.7 24/64	126	S	SW	185	0.8	3.2	10.9		
April	1,019.8	11.4	37.4 10/56	130	NE	SW	134	1.0	4.1	6.9		
May	1,020.0	11.3	37.8 19/53	113	NE	NW	82	1.0	4.7	4.6		
June	1,019.8	11.6	29.7 16/70	108	NE	N	59	0.9	5.0	3.9		
July	1,020.0	11.8	32.9 13/64	148	NE	NW	59	0.8	4.9	3.5		
August	1,019.0	12.8	38.2 8/55	121	NE	SW	77	1.1	4.2	4.8		
September	1,017.6	13.2	34.9 16/65	111	NNE	SW	118	1.3	4.2	5.7		
October	1,016.0	13.6	35.4 1/68	121	NNE	SW	180	1.9	4.2	5.7		
November	1,015.1	13.9	36.3 14/68	130	SW	SW	205	2.0	3.9	6.7		
December	1,013.3	13.5	31.1 18/69	121	SW	SW	250	1.5	3.4	9.0		
Year { Totals . . . . .	..	..	..	..	..	..	1,851	15.0	..	84.7
Year { Averages	1,017.1	..	..	..	NE	SW	..	..	..	..
Year { Extremes . . . . .	..	..	38.2 8/8/65	148	..	..	..	..	..	..

(a) Scale 0-8. (b) Records of cup anemometer. (c) Standard 30 years normal (1931-1960). (d) Class 'A' pan.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record . . .	117	117	117	117	117	54(a)	111	92
January	29.6	16.4	23.0	47.6 12/39	7.3 21/84	82.3 18/82	2.5 14/79	9.9
February	29.4	16.6	23.0	45.3 12/99	7.5 23/18	76.9 10/00	2.1 23/26	9.3
March	26.9	15.0	21.0	43.6 9/34	6.6 21/33	78.9 17/83	0.1 21/33	7.9
April	22.7	12.6	17.7	37.0 5/38	4.2 15/59	68.3 1/83	-2.2 14/63	6.0
May	18.7	10.2	14.5	31.9 4/21	2.7 (b)	64.6 12/79	-3.6 19/28	4.8
June	15.9	8.3	12.1	25.6 4/57	0.3 (c)	59.3 18/79	-6.1 24/44	4.2
July	15.0	7.2	11.1	23.3 11/06	0.0 24/08	56.9 26/90	-5.5 30/29	4.2
August	16.4	7.8	12.1	29.4 31/11	0.2 17/59	60.0 31/92	-5.1 11/29	5.3
September	18.9	9.0	14.0	35.1 30/61	0.4 4/58	71.4 23/82	-3.9 25/27	6.2
October	22.1	10.9	16.5	39.4 21/22	2.3 20/58	72.2 30/21	-3.0 22/66	7.2
November	25.2	12.9	19.1	45.3 21/65	4.9 2/09	74.9 20/78	-0.3 2/09	8.5
December	27.8	14.9	21.4	45.9 29/31	6.1 (d)	79.8 7/99	0.3 4/84	9.4
Year { Averages	22.4	11.8	17.1	..	..	..	..	6.9
Year { Extremes . . . . .	..	..	..	47.6 12/1/39	0.0 24/7/08	82.3 18/1/62	-6.1 24/6/44	..

(a) Discontinued 1934. incomplete 1931-1934. (b) 26/1895 and 24/04. (c) 27/1876 and 24/44. (d) 16/1861 and 4/06.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)				Fog Mean No. days	
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly		Greatest in one day
No. of years of record . . .	106	106	106	106	135	135	135	135	74	
January	11.9	41	59	29	19	4	84 1941	Nil (a)	58 2/89	
February	12.1	43	61	30	20	4	155 1925	Nil (a)	141 7/25	
March	12.0	47	62	29	24	5	117 1878	Nil (a)	89 5/78	
April	11.5	57	72	37	44	10	155 1971	Nil 1945	80 5/60	
May	10.8	67	77	49	69	13	177 1875	2 1934	70 1/53	
June	10.0	75	84	63	72	15	218 1916	6 1958	54 1/20	
July	9.5	76	87	66	66	16	138 1890	10 1899	45 10/65	
August	9.7	70	80	54	62	16	157 1852	8 1944	57 10/51	
September	9.9	60	72	44	51	13	148 1923	7 1951	40 20/23	
October	10.2	52	67	29	44	11	133 1949	1 1969	57 16/08	
November	10.5	45	64	31	31	8	113 1839	1 1963	75 12/60	
December	11.2	41	56	31	27	6	101 1861	Nil 1904	61 23/13	
Year { Totals . . . . .	..	..	..	..	529	121	..	..	..
Year { Averages	10.5	53	..	..	..	..	..	..	..
Year { Extremes . . . . .	..	..	87	29	..	..	218 6/1916	Nil (b)	141 7/2/25

(a) Various years. (b) December to April, various years.

Figures such as 3/55, 21/84, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATIC DATA: BRISBANE, QUEENSLAND

(Lat. 27° 28' S., Long. 153° 2' E. Height above M.S.L. 41 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 32 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds		
		Average (km/h)	Highest mean speed in one day (km/h)	Highest speed (km/h)	Prevailing direction				9 a.m.	3 p.m.	9 a.m., 3 p.m., 9 p.m. (a)
No. of years of record .	87	58	58	58	30(b)	30(b)	65	87	82	66	
January	1,011.7	12.2	31.8	23/47	109	SE	NE	178	4.7	4.6	3.4
February	1,012.4	12.0	35.7	21/54	108	SE	NE	140	3.7	4.8	2.4
March	1,014.6	11.9	32.7	1/29	106	S	E	135	2.3	4.3	5.6
April	1,017.3	10.7	26.9	3/25	104	S	E	111	1.4	3.5	7.9
May	1,018.6	10.3	28.8	17/26	87	SW	SE	86	0.6	3.3	10.0
June	1,018.4	10.3	30.6	14/28	95	SW	WSW	68	0.5	3.3	10.5
July	1,018.9	10.1	35.4	13/54	111	SW	WSW	73	0.4	2.9	13.3
August	1,018.9	10.3	26.9	4/35	100	SW	NE	96	1.4	2.6	13.5
September	1,017.5	10.5	25.9	1/48	102	SW	NE	118	2.8	2.7	12.6
October	1,015.9	11.1	16.8	1/41	100	S	NE	150	4.4	3.4	8.6
November	1,014.1	11.9	24.9	10/28	111	SE	NE	168	5.8	3.9	6.0
December	1,012.1	12.3	31.4	15/26	128	SE	NE	185	6.7	4.3	4.5
Year { Totals . . . . .			..	..	..	..	..	1,508	34.7	..	98.3
Year { Averages	1,015.9	10.9	..	..	..	SW	NE	..	..	3.6	..
Year { Extremes . . . . .	..	..	35.7	..	128	..	..	..	..	..	..
			21/2/54								

(a) Scale 0-8. (b) Standard thirty years normal (1911-1940).

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine				
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass					
No. of years of record .	87	87	87	87	87	50(a)	87	65				
January	29.4	20.6	25.0	43.2	26/40	14.9	4/93	76.2	2/37	9.9	4/93	7.5
February	28.9	20.4	24.7	40.9	21/25	14.7	21/31	74.0	6/10	9.5	22/31	7.0
March	27.8	19.1	23.5	38.8	13/65	11.3	29/13	72.5	6/39	7.4	29/13	6.8
April	26.2	16.4	21.2	36.1	19/73	6.9	25/25	67.7	11/16	2.6	24/25	7.1
May	23.1	13.1	18.0	32.4	21/23	4.8	30/51	63.9	1/10	-1.2	8/97	6.8
June	20.8	10.7	15.7	31.6	19/18	2.4	29/08	57.8	3/18	-3.7	23/88	6.5
July	20.3	9.3	14.9	29.1	23/46	2.3	(b)	63.4	20/15	-4.5	11/90	6.9
August	21.8	10.1	15.9	32.8	14/46	2.7	13/64	61.1	20/17	-2.7	9/99	7.8
September	24.0	12.7	18.3	38.3	22/43	4.8	1/96	68.6	26/03	-0.9	1/89	8.3
October	26.1	15.7	20.9	40.7	30/58	6.3	3/99	69.7	31/18	1.6	8/89	8.2
November	27.8	17.9	22.9	41.2	18/13	9.2	2/05	72.4	7/89	3.8	1/05	8.2
December	29.1	19.6	24.5	41.1	26/93	13.5	5/55	74.4	28/42	9.5	3/94	8.1
Year { Averages	25.4	15.5	20.5	43.2	..	2.3	..	76.2	..	-4.5	..	7.5
Year { Extremes . . . . .	..	..	..	26/1/1940	..	..	..	2/1/1937	..	11/7/1890	..	..

(a) 1887-1926, 1936-March 1947. (b) 12/1894 and 2/1896.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)				Fog Mean No. days				
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly		Greatest in one day			
No. of years of record .	64	87	87	87	122	114	121	121	121	87			
January	21.7	65	79	53	162	13	704	1895	8	1919	465	21/87	0.5
February	22.0	69	82	55	164	14	1,026	1893	15	1849	270	6/31	0.6
March	20.9	71	85	56	145	15	865	1870	Nil	1849	284	14/08	1.2
April	17.5	70	80	56	87	11	388	1867	1	1944	178	3/72	2.2
May	14.3	71	85	59	69	9	352	1876	Nil	1846	143	9/79	3.1
June	12.1	72	84	54	69	8	647	1967	Nil	1847	283	12/67	2.9
July	11.1	70	88	53	57	7	330	1973	Nil	(a)	193	20/65	3.0
August	11.7	66	80	53	47	7	373	1879	Nil	(b)	124	12/87	3.6
September	13.8	63	76	47	48	8	133	1886	3	1907	79	12/65	2.6
October	16.0	60	72	48	75	9	456	1972	(c)	1948	136	25/49	1.2
November	18.1	60	72	45	95	10	315	1917	Nil	1842	143	8/66	0.5
December	20.1	61	70	51	130	12	441	1942	9	1865	168	28/71	0.3
Year { Totals . . . . .	..	..	..	..	1,148	123	..	..	..	..	..	..	21.7
Year { Averages	16.6	67	..	..	..	..	..	..	..	..	..	..	..
Year { Extremes . . . . .	..	..	88	45	..	..	1,026	..	Nil	..	465	..	..
							2/1893		Various		21/1/1887		

Figures such as 23/47, 4/93, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATIC DATA: SYDNEY, NEW SOUTH WALES

(Lat. 33° 52' S., Long., 151° 12' E. Height above M.S.L. 42 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 22 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds			
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction				9 a.m.	3 p.m.	9 a.m., 3 p.m., (a)	No. clear days
					25(b)	25(b)						
No. of years of record .	63	25(b)	25(b)	25(b)	25(b)	86	53	111	62			
January	1,012.6	12.3	30.3 10/49	150	NE	135	3.4	4.7	4.9			
February	1,014.1	11.6	30.3 18/57	101	NE	107	2.6	4.8	4.6			
March	1,016.4	10.5	33.3 10/44	93	WNW	93	1.7	4.4	5.7			
April	1,018.3	10.2	36.2 24/44	116	W	69	1.3	4.1	7.4			
May	1,018.6	10.5	33.8 18/55	101	W	49	1.0	3.9	7.8			
June	1,018.9	11.6	36.0 10/47	135	W	38	0.8	4.0	8.1			
July	1,018.5	11.5	34.3 20/51	106	W	40	0.8	3.5	10.6			
August	1,017.9	12.1	39.6 9/51	109	WNW	51	1.5	3.3	10.5			
September	1,017.0	11.6	35.1 23/42	113	WNW	70	1.9	3.5	9.1			
October	1,015.1	12.3	39.4 1/57	153	WNW	99	2.8	4.1	6.6			
November	1,013.4	12.4	31.9 21/54	114	WNW	119	3.7	4.5	5.3			
December	1,012.0	12.3	36.2 11/52	121	NE	137	4.0	4.6	4.9			
Year { Totals . . . . .	..	..	..	..	..	1,006	25.5	..	85.5
Year { Averages	1,016.1	11.6	..	..	WNW	ENE	..	4.2	..	
Year { Extremes . . . . .	..	..	39.6	153	..	..	..	..	..

(a) Scale 0-8. (b) Years 1938-1962 inclusive.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record .	114	114	114	114	114	84(a)	114	52
January	25.7	18.3	22.0	45.3 14/39	10.6 18/49	73.5 26/15	6.5 6/25	7.2
February	25.4	18.4	21.9	42.1 8/26	9.6 28/63	76.3 14/39	6.0 22/33	6.8
March	24.5	17.3	20.9	39.2 3/69	9.3 14/86	70.2 10/26	4.4 17/13	6.3
April	22.1	14.5	18.3	33.0 (b)	7.0 27/64	62.3 10/77	0.7 24/09	6.2
May	19.0	11.2	15.1	30.0 1/19	4.4 30/62	54.3 1/96	-1.5 25/17	5.7
June	16.6	9.1	12.8	26.9 11/31	2.1 22/32	52.1 2/23	-2.2 22/32	5.3
July	15.8	7.8	11.8	25.7 22/26	2.2 12/90	51.9 19/77	-4.4 4/93	6.1
August	17.4	8.8	13.1	30.4 24/54	2.7 3/72	65.0 30/78	-3.3 4/09	6.8
September	19.6	10.8	15.2	34.6 26/65	4.9 2/45	61.2 12/78	-1.1 17/05	7.1
October	21.9	13.3	17.6	37.4 4/42	5.7 6/27	66.8 20/33	0.4 9/05	7.3
November	23.5	15.3	19.4	40.3 6/46	7.7 1/05	70.3 28/99	1.9 21/67	7.6
December	24.9	17.2	21.1	42.2 20/57	9.1 3/24	73.5 27/89	5.2 3/24	7.3
Year { Averages	21.4	13.6	17.4	..	..	..	..	6.6
Year { Extremes . . . . .	..	..	..	45.3	2.1	76.3	-4.4	..
				14/1/39	22/6/32	14/2/39	4/7/1893	..

(a) Records discontinued 1946. (b) 1/36 and 10/69.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)				Fog Mean No. days	
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly		Greatest in one day
No. of years of record .	97	97	97	97	114	113	114	114	52	
January	18.7	67	78	58	98	13	388 1911	6 1932	180 13/11	
February	19.2	70	81	60	113	13	564 1950	3 1939	226 25/73	
March	18.3	74	85	62	128	14	521 1942	8 1965	281 28/42	
April	15.0	74	87	63	127	13	622 1861	2 1868	191 29/60	
May	11.9	75	90	63	124	13	585 1919	4 1957	212 28/89	
June	10.2	76	89	63	131	12	643 1950	4 1962	131 16/84	
July	9.6	74	88	59	105	11	336 1950	2 1970	198 7/31	
August	9.5	68	84	54	81	11	378 1899	1 1885	140 22/71	
September	11.3	66	79	49	70	11	357 1879	2 1882	145 10/79	
October	13.0	62	77	46	75	12	283 (a)	2 1971	162 13/02	
November	15.0	62	79	42	78	12	517 1961	2 1915	133 27/55	
December	17.6	64	77	51	80	13	402 1920	6 1913	121 13/10	
Year { Totals . . . . .	..	..	..	..	1,209	149	..	..	..
Year { Averages	13.6	69	..	..	..	..	..	..	..
Year { Extremes . . . . .	..	..	90	42	..	..	643 6/1950	1 8/1885	281
									28/3/1942	

(a) 1916 and 1959.

Figures such as 10/49, 28/63, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATIC DATA: CANBERRA, AUSTRALIAN CAPITAL TERRITORY

(Lat. 35° 19' S., Long. 149° 11' E. Height above M.S.L. 571 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 22 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds			
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction				9 a.m.	3 p.m.	9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
					9 a.m.	3 p.m.						
No. of years of record . . .	34	43(b)	43(b)	34(c)	34(c)	34(c)	34	34	34(e)			
January	1,012.1	6.6	24 24/33	104	NW	NW	197	3.3	4.1			
February	1,013.1	6.1	25 24/33	104	NW	NW	155	3.0	4.5			
March	1,016.1	5.3	29 28/42	111	SE	NW	130	1.5	4.1			
April	1,018.8	5.0	30 8/45	106	NW	NW	80	0.8	4.2			
May	1,019.0	4.4	21 27/58	104	NW	NW	48	0.4	4.4			
June	1,021.0	4.8	26 2/30	96	NW	NW	31	0.2	4.6			
July	1,020.4	5.0	38 7/31	102	NW	NW	31	0.1	4.4			
August	1,018.6	5.9	25 25/36	113	NW	NW	44	0.8	4.3			
September	1,017.4	6.0	28 28/34	107	NW	NW	71	1.1	4.0			
October	1,014.9	6.5	23 12/57	119	NW	NW	108	2.1	4.3			
November	1,011.8	6.9	28 28/42	128	NW	NW	145	3.2	4.4			
December	1,010.6	6.9	26 11/38	106	NW	NW	183	3.5	4.1			
Year { Totals . . . . .	..	..	..	..	..	..	1,223	20.2	..
Year { Averages	1,016.1	5.8	..	..	NW	NW	..	..	4.3
Year { Extremes . . . . .	..	..	38 7/31	128	..	..	..	..	..

(a) Scale 0-8. (b) Recorded at Forestry and Timber Bureau, Yarralumla, where a cup anemometer is installed. (c) Recorded at Meteorological office, R.A.A.F. Fairbairn, where a Dines Pressure Tube anemometer is installed. (d) Australian tank, Yarralumla, 1929-1966. (e) 1940-72. Formerly assessed over 37-year period at Yarralumla.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record . . .	34	34	34	34	34	..	..	22
January	27.6	12.9	20.3	41.4 31/68	1.8 1/56	..	-0.4 1/56	8.9
February	26.6	12.6	19.6	42.2 1/68	3.0 16/62	..	0.2 17/70	8.2
March	24.4	10.4	17.4	36.4 9/40	-1.1 24/67	..	-4.0 (a)	7.5
April	19.7	6.4	13.1	32.6 12/68	-3.3 26/72	..	-8.3 24/69	7.0
May	14.8	2.7	8.7	24.5 10/67	-7.3 16/57	..	-10.4 26/69	5.6
June	12.0	0.8	6.4	20.1 3/57	-8.5 8/57	..	-13.4 25/71	4.7
July	11.0	-0.4	5.3	16.9 25/72	-10.0 11/71	..	-15.1 11/71	5.2
August	12.6	0.8	6.7	21.7 24/54	-7.7 11/69	..	-12.8 11/69	6.1
September	15.9	2.7	9.3	28.6 26/65	-5.6 5/40	..	-10.6 12/71	7.4
October	19.1	5.8	12.5	32.7 13/46	-3.3 4/57	..	-6.2 4/57	8.0
November	22.3	8.2	15.3	38.8 19/44	-1.8 28/67	..	-6.3 28/67	8.8
December	25.9	11.0	18.5	38.8 21/53	1.1 18/64	..	-3.9 18/64	9.0
Year { Averages	19.3	6.2	12.8	..	..	..	..	..
Year { Extremes . . . . .	..	..	..	42.2	-10.0	..	-15.1	..
				1/2/68	11/7/71		11/7/71	

(a) 30/58 and 24/67.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)				Fog Mean No. days	
		Mean	Highest mean	Lowest mean	Mean mthly	No. of days of rain	Greatest monthly	Least monthly		Greatest in one day
No. of years of record . . .	34(a)	34	34	34	34	34	34	34	34	
January	13.1	59	75	42	59	8	164 1941	1 1947	95 12/45	
February	14.0	65	81	53	57	7	145 1948	Nil 1968	53 3/46	
March	13.1	69	81	53	52	7	312 1950	1 1954	66 5/59	
April	10.0	75	84	38	47	7	154 1940	2 1942	75 2/59	
May	8.7	83	96	73	52	9	150 1953	2 1961	96 3/48	
June	7.1	85	97	73	38	9	126 1956	5 1971	45 25/56	
July	6.6	84	93	68	37	10	103 1960	4 1970	35 10/57	
August	7.1	80	92	58	45	12	106 1955	7 1944	28 3/51	
September	8.1	73	82	55	48	10	116 1970	6 1946	41 16/62	
October	10.0	66	82	50	69	12	148 1959	6 1940	105 21/59	
November	10.7	59	76	38	64	10	135 1961	13 1940	64 9/50	
December	12.3	58	74	43	58	8	215 1947	Nil 1967	87 30/48	
Year { Totals . . . . .	..	..	..	..	626	109	..	..	..
Year { Averages	10.0	71	..	..	..	..	..	..	..
Year { Extremes . . . . .	..	..	97	38	..	..	312 3/50	Nil (b)	105
									21/10/59	

(a) Formerly assessed over 38-year period at Forestry and Timber Bureau, Yarralumla. (b) 12/67 and 2/68. Data shown in the above tables relate to the Meteorological Office, R.A.A.F., Fairbairn, except where otherwise indicated, and cover years up to 1972. Figures such as 23/33, 31/68, etc., indicate, in respect of the month of reference, the day and year of the occurrence.

CLIMATIC DATA: MELBOURNE, VICTORIA

(Lat. 37° 49' S., Long. 144° 58' E. Height above M.S.L. 35 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 28 metres)					Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days
		Average (km/h)	Highest mean speed in one day (km/h)	Highest gust speed (km/h)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of record .	117	34(b)	61	64	55	55	94(c)	66	117	66
January	1,012.8	13.1	34.0 27/41	106	S	S	165	1.7	4.1	6.7
February	1,014.4	12.6	30.6 13/47	119	S	S	129	1.9	4.0	6.0
March	1,016.8	11.5	29.0 3/61	106	N	S	105	1.2	4.3	5.5
April	1,019.0	11.2	33.7 27/71	108	N	S	64	0.7	4.7	4.3
May	1,019.1	11.5	33.0 4/61	116	N	N	39	0.4	5.2	2.9
June	1,018.9	11.6	36.7 16/47	103	N	N	29	0.2	5.3	2.8
July	1,018.6	12.8	36.9 24/70	109	N	N	29	0.2	5.1	2.6
August	1,017.6	12.7	34.3 20/42	108	N	N	39	0.6	5.0	2.7
September	1,016.0	12.8	34.0 15/64	111	N	S	59	0.8	4.8	3.7
October	1,014.7	12.9	30.4 6/68	111	N	S	86	1.6	4.8	3.5
November	1,013.9	13.3	35.8 8/71	114	SW	S	115	2.0	4.9	3.2
December	1,012.4	13.3	33.8 12/52	100	S	S	147	2.2	4.5	4.4
Year { Totals . . . . .	..	..	..	..	..	..	1,006	13.5	..	48.2
Year { Averages	1,016.2	12.5	..	..	N	S	..	..	4.7	..
Year { Extremes . . . . .	..	..	36.9	119	..	..	..	..	..	..
			24/7/70							

(a) Scale 0-8. (b) Early records not comparable. (c) Records to 1966.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record .	118	118	118	118	118	86(a)	114	52(b)
January	25.7	13.9	19.8	45.6 13/39	5.6 28/85	81.4 14/62	-1.0 28/85	8.1
February	25.6	14.2	19.9	43.1 7/01	4.6 24/24	75.3 15/70	-0.6 6/91	7.5
March	23.8	12.8	18.3	41.7 11/40	2.8 17/84	73.6 1/68	-1.7 (c)	6.6
April	20.1	10.5	15.3	34.9 5/38	1.6 24/88	66.7 8/61	-3.9 23/97	5.1
May	16.5	8.3	12.4	28.7 7/05	-1.2 29/16	61.4 2/59	-6.1 26/16	3.9
June	13.9	6.6	10.3	22.4 2/57	-2.2 11/66	53.9 11/61	-6.7 30/29	3.4
July	13.2	5.7	9.4	20.7 22/26	-2.8 21/69	52.1 27/80	-6.4 12/03	3.7
August	14.8	6.4	10.6	25.0 20/85	-2.1 11/63	58.6 29/69	-5.9 14/02	4.6
September	17.1	7.6	12.3	31.4 28/28	-0.6 3/40	61.2 20/67	-5.1 8/18	5.5
October	19.5	9.2	14.4	36.9 24/14	0.1 3/71	67.9 28/68	-4.0 22/18	5.9
November	21.8	10.8	16.3	40.9 27/94	2.4 2/96	70.9 29/65	-4.1 2/96	6.5
December	24.1	12.6	18.3	43.7 15/76	4.4 4/70	76.8 20/69	0.7 1/04	7.3
Year { Averages	19.7	9.9	14.8	..	..	..	..	5.7
Year { Extremes . . . . .	..	..	..	45.6	-2.8	81.4	-6.7	..
				13/1/39 21/7/69		14/1/62 30/6/29		

(a) Discontinued 1946. (b) Discontinued 1967. (c) 17/1884 and 20/1897.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)			Rainfall (millimetres)					Fog Mean No. days
	Rel. hum. (%) at 9 a.m.			Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
	Mean	Highest mean	Lowest mean						
No. of years of record .	66	66	66	118	118	118	118	118	116
January	13.1	60	68	50	48	8	176	1963	108 29/63
February	14.2	63	77	48	50	7	238	1972	87 26/46
March	13.3	66	79	50	54	9	191	1911	4 1934
April	11.7	72	82	66	59	11	195	1960	Nil 1923
May	10.3	79	88	70	57	14	142	1942	4 1934
June	9.3	83	92	73	50	14	114	1859	8 1858
July	8.9	81	87	75	48	15	178	1891	15 1902
August	9.1	75	82	65	49	15	111	1939	12 1903
September	9.5	68	76	60	58	14	201	1916	13 1907
October	10.5	63	71	52	67	14	193	1869	7 1914
November	11.3	60	70	52	59	12	206	1954	6 1895
December	12.5	60	69	48	58	10	182	1863	1 1972
Year { Totals . . . . .	..	..	..	657	143	..	..	..	..
Year { Averages	11.1	69	..	..	..	..	..	..	..
Year { Extremes . . . . .	..	..	92	48	..	..	238	2/72	Nil 4/23
									108 29/1/63

(a) Less than 1 mm.

Figures such as 27/41, 28/85, etc., indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

CLIMATIC DATA: HOBART, TASMANIA

(Lat. 42° 53' S., Long. 147° 20' E. Height above M.S.L. 54 metres)

BAROMETER, WIND, EVAPORATION, THUNDER, CLOUDS, AND CLEAR DAYS

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 12 metres)				Mean amt evaporation (mm)	No. days thunder	Mean daily amt clouds 9 a.m., 3 p.m., 9 p.m. (a)	No. clear days	
		Average (km/h)	Highest mean speed in one day (km/h)	High-est gust speed (km/h)	Prevailing direction					
					9 a.m.					3 p.m.
No. of years of record .	88	62	63	82	30(b)	30(b)	8(c)	63	88	30(b)
January	1,010.6	12.6	33.5 30/16	130	NNW	SSE	166	1.0	5.0	1.9
February	1,012.8	11.5	40.6 4/27	121	NNW	SSE	132	1.0	4.9	2.3
March	1,014.3	10.9	34.4 13/38	127	NW	SSE	111	0.7	4.8	2.4
April	1,015.4	10.9	38.8 9/52	119	NW	W	72	0.4	5.0	1.7
May	1,015.4	10.4	35.4 21/65	135	NNW	NW	40	0.0	5.0	2.4
June	1,015.2	10.2	38.2 27/20	132	NW	NW	22	0.0	5.0	2.4
July	1,014.1	10.7	36.9 22/53	129	NNW	NNW	26	0.0	4.8	2.0
August	1,012.8	11.0	41.0 19/26	140	NNW	NW	45	0.1	4.9	2.1
September	1,011.4	12.5	43.1 28/65	150	NNW	NW	77	0.1	4.9	1.5
October	1,010.3	12.6	32.4 3/65	140	NNW	SW	111	0.4	5.2	1.0
November	1,009.8	12.8	34.1 18/15	133	NNW	S	122	0.6	5.3	1.3
December	1,009.4	12.3	37.7 1/34	122	NNW	SSE	148	0.9	5.3	1.1
Year { Totals . . . . .	..	..	..	..	..	..	1,072	5.2	..	22.1
Year { Averages	1,012.6	11.8	..	..	NNW	W	..	..	5.0	..
Year { Extremes . . . . .	..	..	43.1 28/9/65	150	..	..	..	..	..	..

(a) Scale 0-8. (b) Standard thirty years normal (1911-1940). (c) Class "A" American pan.

TEMPERATURE AND SUNSHINE

Month	Air temperature daily readings (°Celsius)			Extreme air temperature (°Celsius)		Extreme temperature (°Celsius)		Mean daily hours sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Highest in sun	Lowest on grass	
No. of years of record .	104	104	104	90	89	57(a)	85	53
January	21.6	11.5	16.5	40.6 (b)	4.5 (c)	71.1 (d)	-0.8 19/97	7.8
February	21.6	11.7	16.7	40.2 12/99	3.9 20/87	73.9 24/98	-2.1 -/87	7.0
March	20.1	10.5	15.8	37.3 13/40	1.8 31/26	66.1 26/44	-2.5 30/02	6.4
April	17.0	8.6	12.8	30.6 1/41	0.7 14/63	61.1 18/93	-3.9 -/86	5.1
May	14.1	6.6	10.3	25.5 5/21	-1.5 30/02	53.3 (e)	-6.7 19/02	4.3
June	11.7	5.0	8.3	20.7 1/07	-2.8 25/72	50.0 12/94	-7.7 24/63	3.9
July	11.3	4.2	7.7	19.0 14/34	-2.4 (g)	49.4 12/93	-7.4 16/86	4.3
August	12.7	5.0	8.9	22.0 28/14	-1.8 5/62	54.4 -/87	-6.6 7/09	5.0
September	14.9	6.1	15.0	28.2 29/73	-1.1 12/41	58.9 23/93	-7.6 16/26	5.9
October	16.9	7.5	12.2	33.4 24/14	0.0 12/89	68.9 9/93	-4.6 (f)	6.3
November	18.6	9.0	13.8	36.9 26/37	1.7 16/41	55.6 19/92	-3.3 1/08	7.0
December	20.4	10.6	15.5	40.7 30/97	3.4 3/06	71.9 10/39	-2.7 -/86	7.2
Year { Averages	16.7	8.0	12.3	..	..	73.9	..	5.8
Year { Extremes . . . . .	..	..	..	40.7 30/12/1897	-2.8 25/6/72	73.9 24/2/1968	-7.7 24/6/1963	..

(a) Period 1934-1938 not comparable; records discontinued 1946. (b) 1/1900 and 19/1959. (c) 09/1937 and 11/1937. (d) 05/1886 and 13/1905. (e) -/1899 and -/1893. (f) 1/1886 and 1/1899. (g) 11/1895 and 7/1973.

HUMIDITY, RAINFALL, AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rel. hum. (%) at 9 a.m.			Rainfall (millimetres)				Fog Mean No. days	
		Mean	Highest mean	Lowest mean	Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly		
										Greatest in one day
No. of years of record .	77(a)	81	81	81	131	89	131	131	61	
January	11.0	58	81	45	45	11	150 1893	4 (b) 131	75 30/16	0.1
February	11.7	62	83	49	41	10	232 1985	3 1914	56 1/54	0.0
March	11.0	65	78	52	44	11	255 1946	7 1943	88 17/46	0.3
April	10.0	70	84	57	52	12	248 1960	2 1904	133 23/60	0.3
May	8.8	75	86	51	50	14	214 1958	4 1913	47 3/73	1.1
June	7.9	78	91	61	57	15	238 1954	7 1886	147 7/54	1.5
July	7.6	78	87	72	54	15	155 1967	4 1950	64 18/22	1.3
August	7.9	73	86	59	49	15	258 1858	8 1892	58 14/90	0.5
September	8.3	66	81	52	53	15	201 1957	10 1951	156 15/57	0.2
October	9.1	61	74	52	61	17	193 1947	10 1914	65 4/06	0.1
November	9.6	59	73	49	61	14	227 1849	8 1921	94 30/85	0.1
December	10.6	57	73	42	56	13	229 1875	4 1931	85 5/41	0.1
Year { Totals . . . . .	..	..	..	..	623	162	..	..	..	5.6
Year { Averages	9.5	67	..	..	..	..	..	..	..	..
Year { Extremes . . . . .	..	..	91	42	..	..	258	2	156	..
							8/1858	4/1904	15/9/57	..

Figures such as 30/16, 12/99, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates in italics relate to nineteenth century.

Climatic data for selected Australian localities

The following table shows some of the more important climatic data for selected Australian localities.

CLIMATIC DATA FOR SELECTED AUSTRALIAN LOCALITIES

(Temperature and humidity generally over years 1957-1973)

Town	Rainfall		Temperature				Relative humidity				
	No. of years of record	Average annual rainfall (mm)	Average number of wet days	Average maximum, January (°C.)	Average maximum, July (°C.)	Average minimum, January (°C.)	Average minimum, July (°C.)	Average 9 a.m., January	Average 9 a.m., July	Average 3 p.m., January (%)	Average 3 p.m., July (%)
WESTERN AUSTRALIA											
Albany	94	948	184	25.8	15.7	13.3	7.4	73	84	65	70
Broome	63	574	38	33.3	28.5	26.2	13.6	75	46	62	43
Bunbury	97	881	122	26.9	16.7	16.5	9.1	63	78	59	69
Carnarvon	67	229	35	30.8	21.9	22.6	11.0	62	69	61	54
Esperance	85	675	128	25.9	17.0	15.9	7.9	70	81	63	65
Geraldton	86	462	78	31.6	19.4	18.7	9.2	61	68	60	57
Kalgoorlie	57	243	52	33.6	16.5	18.3	4.9	44	66	24	49
Meekatharra	51	236	36	37.8	18.6	24.2	7.3	29	62	17	37
Narrogin	82	506	96	30.9	14.5	14.7	5.3	58	84	33	67
Port Hedland	50	323	19	36.5	27.0	25.2	11.8	67	42	63	47
Wyndham	81	693	56	36.4	31.1	26.2	18.7	64	33	49	27
NORTHERN TERRITORY											
Alice Springs	100	266	33	36.6	21.8	22.2	4.8	31	49	19	30
Tennant Creek	100	362	33	37.7	24.4	24.8	11.1	46	39	25	24
SOUTH AUSTRALIA											
Ceduna	67	293	73	28.5	17.2	15.1	5.8	47	79	42	53
Mount Gambier	113	774	162	25.6	13.1	10.8	4.9	65	79	50	73
Oodnadatta	50	117	20	38.2	19.4	23.2	5.8	27	49	15	33
Port Augusta	101	242	60	32.3	16.6	19.5	7.1	44	66	31	49
Port Lincoln	108	486	125	25.5	15.9	15.7	8.4	65	79	54	66
Port Pirie	97	343	74	31.4	15.9	17.3	7.5	51	75	31	55
QUEENSLAND											
Atherton	72	1,412	135	28.8	21.6	18.3	10.0	76	78	65	55
Bundaberg	91	1,159	94	29.8	21.5	21.4	10.1	68	66	60	48
Cairns	76	2,224	141	31.5	25.4	23.6	16.7	71	72	62	56
Charleville	82	497	55	34.6	19.4	21.2	4.3	46	66	27	35
Charters Towers	90	650	63	33.6	24.4	21.7	10.5	65	63	42	47
Cloncurry	87	468	39	37.8	25.2	25.0	10.7	40	40	28	26
Ipswich	104	876	94	32.1	20.9	20.7	6.9	65	65	55	68
Longreach	80	442	46	37.9	23.0	22.7	6.9	43	53	26	28
Mackay	79	1,666	117	29.7	21.2	23.1	12.2	74	75	70	66
Maryborough	103	1,200	115	29.8	21.2	20.3	7.8	73	77	62	51
Normanton	102	932	57	35.4	29.2	25.0	15.2	71	44	53	27
Rockhampton	96	943	86	31.4	22.9	21.7	10.7	69	70	52	39
Roma	89	575	61	34.1	20.2	20.5	4.8	55	64	34	37
Toowoomba	102	955	105	26.9	16.2	16.5	4.7	73	79	53	48
Townsville	41	1,105	63	31.3	24.9	23.8	15.4	75	63	62	59
NEW SOUTH WALES											
Albury	96	705	96	30.8	12.0	14.1	3.0	45	74	24	67
Armidale	110	795	110	26.6	12.7	13.5	1.0	66	61	47	51
Bega	90	871	85	26.1	16.6	14.0	1.4	65	70	57	51
Bourke	102	346	46	35.0	18.0	20.7	4.8	41	64	28	40
Broken Hill	84	241	45	32.1	14.9	18.8	5.5	41	70	28	45
Cooma	109	503	90	25.7	9.3	11.1	-1.0	59	67	32	53
Dubbo	102	584	74	33.4	15.4	17.7	3.1	51	74	32	50
Goulburn	102	712	105	26.8	11.1	13.0	2.9	57	74	43	70
Grafton	93	983	104	31.7	20.3	19.5	5.5	72	75	58	45
Katoomba	86	1,405	122	23.4	9.3	12.9	2.9	61	71	60	65
Leeton	59	432	81	32.1	13.9	17.4	4.0	46	76	28	57
Moree	86	578	59	35.6	17.8	19.5	4.2	51	75	32	44
Newcastle	108	1,145	132	24.4	16.6	19.2	8.2	76	73	72	55
Orange	82	877	100	28.8	9.6	11.5	-0.3	58	84	49	64
Port Kembla	80	1,136	88	24.1	16.7	18.4	9.8	76	63	74	56
Tamworth	93	673	80	32.8	15.3	17.1	3.6	52	77	35	46
Taree	90	1,178	112	28.6	18.8	17.0	4.9	65	69	61	47
Wagga Wagga	101	554	88	31.1	12.3	16.4	3.2	50	77	34	67

CLIMATIC DATA FOR SELECTED AUSTRALIAN LOCALITIES—*continued*

Town	Rainfall			Temperature				Relative humidity				
	No. of years of record	Average annual rainfall (mm)	Average number of wet days	Average maxi-	Average maxi-	Average mini-	Average mini-	Average	Average	Average	Average	
				imum, January (°C.)	imum, July (°C.)	imum, January (°C.)	imum, July (°C.)	9 a.m., January	9 a.m., July	3 p.m., January (%)	3 p.m., July (%)	
VICTORIA												
Ballarat	91	744	161	25.5	9.9	11.4	3.5	59	81	40	74	
Bendigo	112	546	123	29.2	11.9	14.4	3.7	50	75	32	65	
Geelong	99	538	128	24.5	13.5	13.3	5.2	62	83	52	68	
Horsham	99	449	102	30.8	13.5	12.9	4.1	45	77	26	63	
Mildura	59	268	58	32.1	15.3	16.9	4.4	48	71	27	56	
Sale	75	610	122	25.4	13.5	12.9	3.7	66	86	..	..
Seymour	92	596	94	27.8	11.5	12.9	3.4	52	79	35	73	
Shepparton	95	509	89	30.2	13.2	15.2	3.3	51	77	..	..
Wangaratta	96	640	96	30.9	12.6	15.0	3.4	49	75	28	68	
Warrnambool	76	726	169	23.2	13.6	13.1	5.9	73	83	62	71	
TASMANIA												
Burnie	83	990	158	18.4	12.4	12.2	4.7	66	83	59	2	
Launceston	80	719	140	23.3	10.7	10.4	3.1	61	77	42	70	
Zeehan	77	2,444	239	20.3	10.7	8.1	4.0	69	81	58	75	

NOTE. The table on the next page gives the latitude, longitude, and altitude of the weather recording station at each of the above towns.

LOCATION CO-ORDINATES FOR SELECTED AUSTRALIAN LOCALITIES

Station	Lat.	Long.	Altitude (m)	Station	Lat.	Long.	Altitude (m)
Western Australia—				Queensland—<i>contd</i>			
Albany	34° 57'	117° 48'	69	Toowoomba	27° 33'	151° 57'	586
Broome	17° 57'	122° 13'	12	Townsville	19° 15'	146° 46'	3
Bunbury	33° 19'	115° 38'	1	New South Wales—			
Carnarvon	24° 35'	113° 39'	4	Albury	36° 06'	146° 54'	183
Esperance	33° 51'	121° 53'	4	Armidale	30° 32'	151° 38'	980
Geraldton	28° 48'	114° 42'	28	Bega	36° 40'	149° 50'	15
Kalgoorlie	30° 46'	121° 27'	360	Bourke	30° 05'	145° 58'	107
Meekatharra	26° 36'	118° 29'	517	Broken Hill	31° 57'	141° 28'	298
Narrogin	32° 54'	117° 09'	351	Cooma	36° 13'	149° 08'	838
Port Hedland	20° 23'	118° 37'	6	Dubbo	32° 10'	148° 37'	262
Wyndham	15° 31'	128° 09'	6	Goulburn	34° 45'	149° 43'	632
Northern Territory—				Grafton	29° 41'	152° 56'	6
Alice Springs	23° 48'	133° 53'	546	Katoomba	33° 43'	150° 19'	1,000
Tennant Creek	19° 38'	134° 11'	375	Leeton	34° 33'	146° 24'	151
South Australia—				Moree	29° 28'	149° 51'	207
Ceduna	32° 08'	133° 42'	17	Newcastle	32° 55'	151° 49'	37
Mount Gambier	37° 45'	140° 47'	63	Orange	33° 18'	149° 06'	869
Oodnadatta	27° 33'	135° 29'	113	Port Kembla	34° 29'	150° 55'	20
Port Augusta	32° 33'	137° 47'	4	Tamworth	31° 05'	150° 56'	390
Port Lincoln	34° 47'	135° 53'	4	Taree	31° 54'	152° 28'	9
Port Pirie	33° 11'	138° 01'	3	Wagga	35° 08'	147° 25'	219
Queensland—				Wollongong	34° 25'	150° 56'	46
Atherton	17° 17'	145° 27'	752	Victoria—			
Bundaberg	24° 52'	152° 21'	2	Ballarat	37° 35'	143° 50'	437
Cairns	16° 35'	145° 44'	3	Bendigo	36° 46'	144° 17'	223
Charleville	26° 25'	146° 17'	290	Geelong	38° 07'	144° 22'	17
Charters Towers	20° 03'	146° 08'	306	Horsham	36° 40'	142° 12'	133
Cloncurry	20° 40'	140° 30'	189	Mildura	34° 14'	142° 05'	48
Ipswich	27° 38'	152° 44'	20	Sale	38° 06'	147° 08'	15
Longreach	23° 26'	144° 15'	187	Seymour	37° 02'	145° 08'	141
Mackay	21° 07'	149° 10'	3	Shepparton	36° 23'	145° 24'	113
Maryborough	25° 32'	152° 42'	6	Wangaratta	36° 22'	146° 19'	150
Normanton	17° 39'	141° 05'	10	Warrnambool	38° 24'	142° 29'	10
Rockhampton	23° 23'	150° 29'	8	Tasmania—			
Roma	26° 36'	148° 42'	305	Burnie	41° 04'	145° 54'	4
				Launceston	41° 33'	147° 13'	166
				Zeehan	41° 54'	145° 23'	180

REFERENCES

Bureau of Meteorology (Melbourne), Department of Science.

- Ashton, H. T. 1964 *Meteorological Data for Air Conditioning in Australia*. Bulletin 47.
- Foley, J. C. 1945 (i) *Frost in the Australian Region*. Bulletin 32
1957 (ii) *Droughts in Australia*. Bulletin 43.
- Gaffney, D. O. 1971 (i) *Snowy Mountains Median Annual Rainfall Working Paper 139*
1971 (ii) *Seasonal Rainfall Zones in Australia Working Paper 141*
- Gibbs, W. J. and Maher, J. V. 1967 *Rainfall Deciles as Drought Indicators*. Bulletin 48.
- Hounam, C. E. 1969 *Climate and Air Conditioning Requirements in Sparsely Occupied Areas of Australia*. Working Paper 30/78.
- Whittingham, H. E. . . . 1964 *Extreme Wind Gusts in Australia*. Bulletin 46.

Other Publications

- American Society of Heating, Refrigerating and Air Conditioning Engineers 1960 *Physiological Principles. In Heating, Ventilating and Air Conditioning Guide Vol. 38*, (Washington; the Society).
- Gaffney, D. O. 1970 *Rainfall*
1973 *Temperatures*
1973 *Climate*

Commentaries prepared for Atlas of Australia Resources, Second Series, Department of Minerals and Energy, Canberra.

- Lee, D. H. K. and Henschel, A. 1963 *Evaluation of Environment in Shelters*. U.S. Department of Health, Education and Welfare (Cincinnati: the Department).

The Seasonal Rainfall of 1973 (December 1972 to November 1973).

The following is a summary of rainfall experienced during the four seasons, commencing December 1972 and ending November 1973. Plate 2, page 29, shows the rainfall distribution for 1973.

Summer 1972-73 (December 1972 to February 1973) Summer rainfall in Western Australia was well below average in the south but slightly above average in the north.

In the Northern Territory above average rainfall was received except for the eastern part of the Alice Springs district and small areas of the Barkly and Victoria districts.

In South Australia rainfall was above average in most areas. The coast of the Western Agricultural district, Kangaroo Island and the Lower South-east district were slightly below average.

Queensland's rainfall was chiefly above average especially in the south-west. The Peninsula and isolated parts of the Central Highlands and northern Maranoa districts received slightly below average rainfall.

New South Wales rainfall was above average except in the Upper Western area, parts of the North-west Plains, the Goulburn-Monaro area of the Southern Tablelands and in coastal areas which were generally below average.

Victoria was average or above, except in the East Gippsland district which was mainly below average.

Tasmania was above average except for parts of the East Coast, the South-east and Lower Derwent Valley, and areas of the Tamar Valley.

Autumn 1973 (March 1973 to May 1973) Autumn rainfall in Western Australia was below average in the south-west portion and in parts of the De Grey district, but mainly above average elsewhere.

In the Northern Territory above average rainfall was received in the Arnhem and eastern Barkly districts with mainly average falls elsewhere in the "Top End". The southern areas of the Territory were mostly below average.

In South Australia rainfall was above average, the chief exception being the southern Mt Lofty Ranges and eastward to the Murray River.

Queensland rainfall was chiefly average or above in the north, but appreciably below average in the south.

New South Wales rainfall was above average in most of the western areas and the Riverina and below average in the north-east and southern coastal areas.

Victoria was average or above, except in East Gippsland.

Tasmania was much above average grading to average falls in eastern coastal areas.

Winter 1973 (June 1973 to August 1973) Winter rainfall in Western Australia was generally above average with near average falls in the agricultural areas of the south-west.

The whole of the Northern Territory received much above average rainfall, most of which fell in June.

In South Australia rainfall was generally much above average, except for some areas towards the south-east coast which were about average or slightly below.

Most of the south of Queensland received above-average rainfall, but much of the north was below average.

In New South Wales west of the highlands rains were generally above average. East of the highlands rainfall was about average or below.

Rains in Victoria were above average in the north and chiefly average in the south.

Tasmania's rainfall was chiefly below average, except for a few areas about average in the north.

Spring 1973 (September 1973 to November 1973) Spring rainfall in Western Australia was generally above average.

In the Northern Territory rainfall was generally very much above average.

South Australia was well above average with some very much above average falls in Murray Valley areas.

Queensland's tropical areas were well above average, particularly along the far north coast. In the south, rainfall was average or above, but there were small pockets below average.

New South Wales was above average throughout with some districts within the highest 10 per cent of recorded spring rains.

Victoria was chiefly above average, except for isolated pockets below average in the south.

Tasmania was chiefly average or above.

CHAPTER 3

GENERAL GOVERNMENT

Parliamentary government

Scheme of parliamentary government

Under Section 1 of the Australian Constitution the legislative power of Australia is vested in the Parliament of Australia, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout Australia by the Governor-General who, subject to the Constitution of Australia, has such powers and functions as the Sovereign is pleased to assign to him. In each State there is a State Governor who is the representative of the Sovereign for the State. He has such powers within the State as are conferred upon him by the Letters Patent constituting his office and he exercises these powers in accordance with instructions issued to him by the Sovereign, detailing the manner in which his duties are to be fulfilled.

The Legislature in each State was bicameral until 1922, when the Queensland Parliament became unicameral with the abolition of the Upper House. In Queensland the sole legislative chamber is known as the Legislative Assembly. The Upper House is known in the Australian Parliament as the Senate, and in the bicameral State Parliaments as the Legislative Council. The Lower House is known in the Australian Parliament as the House of Representatives, in the State Parliaments of New South Wales, Victoria and Western Australia as the Legislative Assembly, and in the State Parliaments of South Australia and Tasmania as the House of Assembly. The extent of the Legislative powers of the Parliaments is defined by the Australian and State Constitutions. In those States that have a bicameral legislature the Legislative Assembly or House of Assembly is the larger House.

The members of the Legislative Assembly or House of Assembly, as the case may be, of each State are elected by the people, the franchise extending to British subjects who are at least 18 years of age with certain residential qualifications. With the exception of the New South Wales Legislative Council, the members of State Legislative Councils are, in common with members of the Lower Houses, elected by the people of the respective States. In New South Wales a quarter of the members of the Legislative Council retire each three years, and the continuing members of the Council and the members of the Legislative Assembly, voting as an electoral body, elect members to fill the vacant positions. In Victoria, and Tasmania members of the Legislative Council are elected by adult suffrage, while the franchise is limited in South Australia to the holders of certain property or service qualifications and their spouses. In the Australian Parliament the qualifications for the franchise are identical for both Houses, extending to British subjects who have lived in Australia for six months continuously and who are at least 18 years of age.*

The Sovereign

On 7 February 1952 the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty in Westminster Abbey took place on 2 June 1953. By the *Royal Style and Titles Act* 1973, which Her Majesty assented to in Canberra on 19 October 1973, the Australian Parliament assented to the adoption by Her Majesty, for use in relation to Australia and its Territories, of the Style and Titles set forth in the Schedule to the Act. On the same day, also in Canberra, Her Majesty issued a Proclamation, under the Great Seal of Australia, appointing and declaring that Her Majesty's Style and Titles should henceforth be, in relation to Australia and its Territories, Elizabeth the Second, by the Grace of God Queen of Australia and Her other Realms and Territories, Head of the Commonwealth.

The Governor-General

Powers and functions. As the Queen's representative in Australia, the Governor-General exercises certain prerogative powers and functions assigned to him by the Queen. Other powers and functions are conferred on him by the Constitution. Powers which have been so assigned or conferred include, among others, the power to grant pardons and to remit fines for offences against the laws of Australia;

* The age qualification for enrolment and voting in both houses of the Australian Parliament was lowered from 21 years to 18 years by Act No. 7 of 1973.

to appoint certain officers in the Diplomatic or Consular Service; to appoint times for holding the sessions of the Parliament, prorogue Parliament, and dissolve the House of Representatives; to cause writs to be issued for general elections of members of the House of Representatives; to assent in the Queen's name to a proposed law passed by both Houses of the Parliament or withhold assent, or to reserve the law for the Queen's pleasure, or to return the proposed law to the House in which it originated and transmit therewith any amendments which he may recommend; to exercise executive power; to choose and summon Executive Councillors, who hold office during his pleasure; and to appoint Ministers of State for Australia. In addition, the command-in-chief of the defence forces of Australia is vested in the Governor-General as the Queen's representative.

Many Acts of the Australian Parliament provide that the Governor-General may make regulations to give effect to the Act. The Governor-General may also be authorised by statute to issue proclamations—for example, to declare an Act in force. He has been given power by statute to legislate for certain of the Australian Territories. Under the conventions of responsible government obtaining in British Commonwealth countries, the Governor-General's functions are exercised generally on the advice of Ministers of State.

HOLDERS OF OFFICE. The following list shows the names of the Governors-General since the inception of the Commonwealth of Australia.

GOVERNORS-GENERAL

- Rt Hon. JOHN ADRIAN LOUIS, EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), P.C., K.T., G.C.M.G., G.C.V.O. From 1 January 1901 to 9 January 1903.
- Rt Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 17 July 1902 to 9 January 1903 (Acting).
- Rt Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 9 January 1903 to 21 January 1904.
- Rt Hon. HENRY STAFFORD, BARON NORTHCOTE, P.C., G.C.M.G., G.C.I.E., C.B. From 21 January 1904 to 9 September 1908.
- Rt Hon. WILLIAM HUMBLE, EARL OF DUDLEY, P.C., G.C.B., G.C.M.G., G.C.V.O. From 9 September 1908 to 31 July 1911.
- Rt Hon. THOMAS, BARON DENMAN, P.C., G.C.M.G., K.C.V.O. From 31 July 1911 to 18 May 1914.
- Rt Hon. SIR RONALD CRAUFURD MUNRO-FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18 May 1914 to 6 October 1920.
- Rt Hon. HENRY WILLIAM, BARON FORSTER OF LEPE, P.C., G.C.M.G. From 6 October 1920 to 8 October 1925.
- Rt Hon. JOHN LAWRENCE, BARON STONEHAVEN (afterwards 1ST VISCOUNT STONEHAVEN), P.C., G.C.M.G., D.S.O. From 8 October 1925 to 22 January 1931.
- Rt Hon. SIR ISAAC ALFRED ISAACS, G.C.B., G.C.M.G., K.C. From 22 January 1931 to 23 January 1936.
- Brigadier-General the Rt Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE (afterwards 1ST EARL OF GOWRIE), V.C., P.C., G.C.M.G., C.B., D.S.O., K.G.St.J. From 23 January 1936 to 30 January 1945.
- His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., P.C., K.T., K.P., G.C.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30 January 1945 to 11 March 1947.
- Rt Hon. SIR WILLIAM JOHN MCKELL, G.C.M.G., Q.C. From 11 March 1947 to 8 May 1953.
- Field Marshal SIR WILLIAM JOSEPH SLIM (afterwards VISCOUNT SLIM OF YARRALUMLA), K.G., G.C.B., G.C.M.G., G.C.V.O., G.B.E., D.S.O., M.C., K.St.J. From 8 May 1953 to 2 February 1960.
- Rt Hon. WILLIAM SHEPHERD, VISCOUNT DUNROSSIL, P.C., G.C.M.G., M.C., K.St.J., Q.C. From 2 February 1960 to 3 February 1961.
- Rt Hon. WILLIAM PHILIP, VISCOUNT DE LISLE, V.C., P.C., G.C.M.G., G.C.V.O., K.St.J. From 3 August 1961 to 22 September 1965.
- Rt Hon. RICHARD GARDINER, BARON CASEY, K.G., P.C., G.C.M.G., C.H., D.S.O., M.C., K.St.J. From 22 September 1965 to 30 April 1969.
- Rt Hon. SIR PAUL HASLUCK, G.C.M.G., G.C.V.O., K.St.J. From 30 April 1969 to 11 July 1974.
- Hon. SIR JOHN ROBERT KERR, K.C.M.G., K.St.J. Q.C. From 11 July 1974.

Administrators. In addition to the holders of the office of Governor-General listed above, certain persons have, from time to time, been appointed as Administrator. Administrators are appointed in the event of the death, illness, or absence from Australia of the Governor-General, or for the period between the departure of a Governor-General and the arrival of his successor. The following is a list of such appointments.

ADMINISTRATORS

Rt Hon. FREDERIC JOHN NAPIER, BARON CHELMSFORD (afterwards 1ST VISCOUNT CHELMSFORD), K.C.M.G. From 21 December 1909 to 27 January 1910.

Lieut.-Colonel the Rt Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C. From 3 October 1930 to 22 January 1931.

Captain the Rt Hon. WILLIAM CHARLES ARCEDECKNE, BARON HUNTINGFIELD, K.C.M.G., K.St.J. From 29 March 1938 to 24 September 1938.

Major-General SIR WINSTON JOSEPH DUGAN (afterwards 1ST BARON DUGAN OF VICTORIA), G.C.M.G., C.B., D.S.O., From 5 September 1944 to 30 January 1945; 19 January 1947 to 11 March 1947.

General* SIR JOHN NORTHCOTT, K.C.M.G., K.C.V.O., C.B. from 19 July 1951 to 14 December 1951; 30 July 1956 to 22 October 1956.

General SIR REGINALD ALEXANDER DALLAS BROOKS, K.C.B., K.C.M.G.†, K.C.V.O., D.S.O., K.St.J. From 8 January 1959 to 16 January 1959; 4 February 1961 to 3 August 1961; 5 June 1962 to 3 October 1962; 21 November 1962 to 18 December 1962.

General SIR ERIC WINSLOW WOODWARD, K.C.M.G., K.C.V.O., C.B., C.B.E., D.S.O., K.St.J. From 16 June 1964 to 30 August 1964.

Colonel SIR HENRY ABEL SMITH, K.C.M.G., K.C.V.O., D.S.O., K.St.J. From 7 May 1965 to 22 September 1965.

Lieut.-General SIR EDRIC MONTAGUE BASTYAN, K.C.M.G., K.C.V.O., K.B.E., C.B. From 24 April 1967 to 1 June 1967.

Major-General SIR ROHAN DELACOMBE, K.C.M.G., K.C.V.O., K.B.E., C.B., D.S.O., K.St.J. From 11 February 1971 to 18 February 1971; 12 October 1971 to 19 October 1971; 29 June 1972 to 9 August 1972; 5 April 1974 to 8 April 1974.

Governors of the States

Powers and functions. The Queen is represented in each of the States by a Governor, the office having been constituted by Letters Patent under the Great Seal of the United Kingdom of various dates. The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their Commissions of appointment, and the Governor's Instructions given them under the Royal Sign Manual and Signet or other instrument as specified in the Letters Patent. In addition, they have been invested with various statutory functions by State Constitutions and other Imperial Acts and by Acts of the Parliaments of the States.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State, except those reserved for the Royal assent. The latter include certain classes of Bills which are regulated by the Constitution Acts and by the Governor's Instructions. He administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown. In the performance of his functions generally, particularly those conferred by Statute, the Governor of a State acts on the advice of Ministers of State for the State.

Holders of office. The names of the present (June 1974) State Governors are as follows:

STATE GOVERNORS, JUNE 1974

New South Wales—SIR ARTHUR RODEN CUTLER, V.C., K.C.M.G., K.C.V.O., C.B.E., K.St.J.

Victoria—SIR HENRY WINNECKE, K.C.M.G., O.B.E.

Queensland—AIR MARSHAL SIR COLIN THOMAS HANNAH, K.C.M.G., K.B.E., C.B., K.St.J.

South Australia—SIR MARK LAURENCE ELWIN OLIPHANT, K.B.E., K.St.J.

Western Australia—AIR COMMODORE HUGHIE IDWAL EDWARDS, V.C., C.B., D.S.O., O.B.E., D.F.C.

Tasmania—SIR STANLEY CHARLES BURBURY, K.B.E., K.St.J.

* Lieutenant-General Sir John Northcott was granted honorary rank of General while administering the Government of the Commonwealth. † G.C.M.G., 1963.

The Cabinet and executive government

Both for Australia and the States executive government is based on the system which was evolved in Britain in the 18th Century, and which is generally known as 'Cabinet' or 'responsible' government. Its essence is that the head of the State (Her Majesty the Queen, and her representative the Governor-General or Governor) should perform governmental acts on the advice of her Ministers; that her Ministers of State should be drawn from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the lower House; that the Ministry should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs, or understandings, and through institutions that do not form part of the legal structure of the government at all. The Australian and State Constitutions make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall either be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

The executive power of Australia is exercisable by the Governor-General, and that of the States by the Governor. In each case he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained below. The whole policy of a Ministry is, in practice, determined by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

The Cabinet. This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day alone are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia all Ministers are members of Cabinet. As Ministers are the leaders of the party or parties commanding a majority in the lower House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative program of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing, or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

The Executive Council. This body is usually presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State must be members of the Executive Council. In the case of the Australian Government and also in the case of the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The Meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings the decisions of the Cabinet are, where necessary, given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved.

The appointment of Ministers. Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns, the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the Lower House, and to commission him, as Prime Minister or Premier, to 'form a Ministry'—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

Ministers in Upper and Lower Houses. The following table shows the distribution of Ministers in the Houses of each Parliament in July 1974.

AUSTRALIAN PARLIAMENTS: MINISTERS IN UPPER OR LOWER HOUSES
JULY 1974

Ministers with seats in—	Australian	N.S.W.	Vic.	Qld	S.A.(a)	W.A.	Tas.	Total
The Upper House	7	2	5	(b)	3	3	1	21
The Lower House	20	16	12	14	8	9	9	88
Total	27	18	17	14	11	12	10	109

(a) By the Constitution Act, the number of Ministers was increased to eleven in 1973. (b) Abolished in 1922.

Australian Government Ministries

Names and tenure of office, 1901 to 1974. The following list shows the name of each Australian Government Ministry to hold office since 1 January 1901, and the limits of its term of office.

AUSTRALIAN GOVERNMENT MINISTRIES, 1901 TO JULY 1974

- (i) BARTON MINISTRY, 1 January 1901 to 24 September 1903.
- (ii) DEAKIN MINISTRY, 24 September 1903 to 27 April 1904.
- (iii) WATSON MINISTRY, 27 April 1904 to 17 August 1904.
- (iv) REID-MCLEAN MINISTRY, 18 August 1904 to 5 July 1905.
- (v) DEAKIN MINISTRY, 5 July 1905 to 13 November 1908.
- (vi) FISHER MINISTRY, 13 November 1908 to 1 June 1909.
- (vii) DEAKIN MINISTRY, 2 June 1909 to 29 April 1910.
- (viii) FISHER MINISTRY, 29 April 1910 to 24 June 1913.
- (ix) COOK MINISTRY, 24 June 1913 to 17 September 1914.
- (x) FISHER MINISTRY, 17 September 1914 to 27 October 1915
- (xi) HUGHES MINISTRY, 27 October 1915 to 14 November 1916.
- (xii) HUGHES MINISTRY, 14 November 1916 to 17 February 1917.
- (xiii) HUGHES MINISTRY, 17 February 1917 to 10 January 1918.
- (xiv) HUGHES MINISTRY, 10 January 1918 to 9 February 1923.
- (xv) BRUCE-PAGE MINISTRY, 9 February 1923 to 22 October 1929.
- (xvi) SCULLIN MINISTRY, 22 October 1929 to 6 January 1932.
- (xvii) LYONS MINISTRY, 6 January 1932 to 7 November 1938.
- (xviii) LYONS MINISTRY, 7 November 1938 to 7 April 1939.
- (xix) PAGE MINISTRY, 7 April 1939 to 26 April 1939.
- (xx) MENZIES MINISTRY, 26 April 1939 to 14 March 1940.
- (xxi) MENZIES MINISTRY, 14 March 1940 to 28 October 1940.
- (xxii) MENZIES MINISTRY, 28 October 1940 to 29 August 1941.
- (xxiii) FADDEN MINISTRY, 29 August 1941 to 7 October 1941.
- (xxiv) CURTIN MINISTRY, 7 October 1941 to 21 September 1943.
- (xxv) CURTIN MINISTRY, 21 September 1943 to 6 July 1945.
- (xxvi) FORDE MINISTRY, 6 July 1945 to 13 July 1945.
- (xxvii) CHIFLEY MINISTRY, 13 July 1945 to 1 November 1946.
- (xxviii) CHIFLEY MINISTRY, 1 November 1946 to 19 December 1949.
- (xxix) MENZIES MINISTRY, 19 December 1949 to 11 May 1951.
- (xxx) MENZIES MINISTRY, 11 May 1951 to 11 January 1956.
- (xxxi) MENZIES MINISTRY, 11 January 1956 to 10 December 1958.
- (xxxii) MENZIES MINISTRY, 10 December 1958 to 18 December 1963.
- (xxxiii) MENZIES MINISTRY, 18 December 1963 to 26 January 1966.
- (xxxiv) HOLT MINISTRY, 26 January 1966 to 14 December 1966.
- (xxxv) HOLT MINISTRY, 14 December 1966 to 19 December 1967.
- (xxxvi) MCEWEN MINISTRY, 19 December 1967 to 10 January 1968.
- (xxxvii) GORTON MINISTRY, 10 January 1968 to 28 February 1968.
- (xxxviii) GORTON MINISTRY, 28 February 1968 to 12 November 1969.
- (xxxix) GORTON MINISTRY, 12 November 1969 to 10 March 1971.
- (xl) MCMAHON MINISTRY, 10 March 1971 to 5 December 1972.
- (xli) WHITLAM MINISTRY, 5 December 1972 to 19 December 1972.
- (xlii) WHITLAM MINISTRY, 19 December 1972.

Names of Members of each Ministry to 19 December 1972. In Year Book No. 17, 1924, the names are given of each Ministry up to the Bruce-Page Ministry (9 February 1923 to 22 October 1929), together with the names of the successive holders of portfolios therein, and issue No. 39 contains a list, commencing with the Bruce-Page Ministry, which covers the period between the date on which it assumed power, 9 February 1923, and 31 July 1951, showing the names of all persons who held office in each Ministry during that period. The names of members of subsequent Ministries are listed in successive issues of the Year Book after No. 39.

This issue shows only particulars of the Second Whitlam Ministry from 12 June 1974.

THE SECOND WHITLAM MINISTRY—AT 12 JUNE 1974

(The State in which each Minister's electorate is situated is shown in parenthesis. All Ministers are members of the Australian Labor Party and all are in the Cabinet.)

Prime Minister—

THE HON. E. G. WHITLAM, Q.C., M.P.
(N.S.W.)

Deputy Prime Minister and Minister for Overseas Trade—

THE HON. J. F. CAIRNS, M.P. (Vic.)

Minister for Minerals and Energy—

THE HON. R. F. X. CONNOR, M.P. (N.S.W.)

Minister for Social Security—

THE HON. W. G. HAYDEN, M.P. (Qld)

Leader of the Government in the Senate, Attorney-General and Minister for Customs and Excise—

SENATOR THE HON. L. K. MURPHY, Q.C.
(N.S.W.)

Minister for Foreign Affairs—

SENATOR THE HON. D. R. WILLESEE (W.A.)

Treasurer—

THE HON. F. CREAN, M.P. (Vic.)

Minister for Services and Property and Leader of the House—

THE HON. F. M. DALY, M.P. (N.S.W.)

Minister for the Media and Manager of Government Business in the Senate—

SENATOR THE HON. D. MCCLELLAND (N.S.W.)

Minister for Defence—

THE HON. L. H. BARNARD, M.P. (Tas.)

Minister for Agriculture—

SENATOR THE HON. K. S. WRIEDT (Tas.)

Minister for Northern Development and Minister for the Northern Territory—

THE HON. R. A. PATTERSON, M.P. (Qld)

Minister for Labor and Immigration—

THE HON. C. R. CAMERON, M.P. (S.A.)

Minister for Education—

THE HON. K. E. BEAZLEY, M.P. (W.A.)

Special Minister of State and Minister Assisting the Prime Minister in Matters Relating to the Public Service—

THE HON. L. F. BOWEN, M.P. (N.S.W.)

Minister for Repatriation and Compensation—

SENATOR THE HON. J. M. WHELDON (W.A.)

Minister for Urban and Regional Development—

THE HON. T. UREN, M.P. (N.S.W.)

Postmaster-General—

SENATOR THE HON. R. BISHOP (S.A.)

Minister for Housing and Construction—

THE HON. L. R. JOHNSON, M.P. (N.S.W.)

Minister for Transport—

THE HON. C. K. JONES, M.P. (N.S.W.)

Minister for Health—

THE HON. D. N. EVERINGHAM, M.P. (Qld)

Minister for Manufacturing Industry—

THE HON. K. E. ENDERBY, Q.C., M.P.
(A.C.T.)

Minister for the Capital Territory—

THE HON. G. M. BRYANT, E.D., M.P. (Vic.)

Minister for the Environment and Conservation—

THE HON. M. H. CASS, M.P. (Vic.)

Minister for Aboriginal Affairs—

SENATOR THE HON. J. L. CAVANAGH (S.A.)

Minister for Science, Minister Assisting the Minister for Foreign Affairs in Matters Relating to Papua New Guinea and Minister Assisting the Minister for Defence—

THE HON. W. L. MORRISON, M.P. (N.S.W.)

Minister for Tourism and Recreation, Vice-President of the Executive Council and Minister Assisting the Treasurer—

THE HON. F. E. STEWART, M.P. (N.S.W.)

State Premiers, March 1974

The names of the Premiers of each State in July 1974 are shown below.

STATE PREMIERS, JULY 1974†

New South Wales—The Hon. Sir Robert Askin, K.C.M.G., M.L.A. (L.P.)

Victoria—The Hon. R. J. Hamer, E.D., M.P. (L.P.)

Queensland—The Hon. J. Bjelke-Petersen, M.L.A. (C.P.)

South Australia—The Hon. D. A. Dunstan, Q.C., M.P. (A.L.P.)

Western Australia—The Hon. Sir Charles Court, O.B.E., M.L.A. (L.P.)

Tasmania—The Hon. E. E. Reece, M.H.A. (A.L.P.)

Leaders of the Opposition, Commonwealth and State Parliaments, March 1974

The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in July 1974.

LEADERS OF THE OPPOSITION, JULY 1974†

Federal—Rt Hon. B. M. Snedden, Q.C., M.P. (L.P.)

New South Wales—N. K. Wran, Q.C., M.L.A. (A.L.P.)

Victoria—A. C. Holding, M.P. (A.L.P.)

Queensland—P. J. R. Tucker, M.L.A. (A.L.P.)

South Australia—Dr B. C. Eastick, M.P. (L.C.L.)

Western Australia—The Hon. J. T. Tonkin, M.L.A. (A.L.P.)

Tasmania—The Hon. E. M. Bingham, M.H.A. (L.P.)

Numbers and salaries of Australian Government Ministers

Under Sections 65 and 66, respectively, of the Constitution of the Commonwealth of Australia the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000 (\$24,000), each provision to operate, however, 'until the Parliament otherwise provides'.

Subsequently the number and salaries have been increased from time to time, and from April 1973 the annual sum payable for salaries has been fixed at \$302,000 and the number of Ministers at twenty-seven. An additional ministerial allowance of \$10,900 a year is payable to the Prime Minister, and an additional ministerial allowance of \$5,200 a year to the Deputy Prime Minister and \$4,875 a year to other Ministers.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* page 92).

Parliaments and elections**The Australian Parliaments**

The first Parliament of the Commonwealth of Australia was convened by proclamation dated 29 April 1901 by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9 May 1901 by H.R.H. the Duke of Cornwall and York. The Rt Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since federation.

† Full titles of party abbreviations are shown on page 87.

AUSTRALIAN PARLIAMENTS

<i>Number of Parliament</i>	<i>Date of opening</i>	<i>Date of dissolution</i>
First	9 May 1901	23 November 1903
Second	2 March 1904	5 November 1906
Third	20 February 1907	19 February 1910
Fourth	1 July 1910	23 April 1913
Fifth	9 July 1913	30 July 1914(a)
Sixth	8 October 1914	26 March 1917
Seventh	14 June 1917	3 November 1919
Eighth	26 February 1920	6 November 1922
Ninth	28 February 1923	3 October 1925
Tenth	13 January 1926	9 October 1928
Eleventh	6 February 1929	16 September 1929
Twelfth	20 November 1929	27 November 1931
Thirteenth	17 February 1932	7 August 1934
Fourteenth	23 October 1934	21 September 1937
Fifteenth	30 November 1937	27 August 1940
Sixteenth	20 November 1940	7 July 1943
Seventeenth	23 September 1943	16 August 1946
Eighteenth	6 November 1946	31 October 1949
Nineteenth	22 February 1950	19 March 1951(a)
Twentieth	12 June 1951	21 April 1954
Twenty-first	4 August 1954	4 November 1955
Twenty-second	15 February 1956	14 October 1958
Twenty-third	17 February 1959	2 November 1961
Twenty-fourth	20 February 1962	1 November 1963
Twenty-fifth	25 February 1964	31 October 1966
Twenty-sixth	21 February 1967	29 September 1969
Twenty-seventh	25 November 1969	2 November 1972
Twenty-eighth	27 February 1973	11 April 1974(a)
Twenty-ninth	9 July 1974	

(a) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General, acting on the advice of the Cabinet and under section 57 of the Constitution.

There have been twenty-eight complete Parliaments since Federation. Until 1927 the Parliament met in Melbourne; it now meets in Canberra, the first meeting at Parliament House, Canberra, being opened by the Duke of York on 9 May 1927.

The twenty-eighth Parliament opened on 27 February 1973 and ended on 11 April 1974 when a dissolution of both the Senate and the House of Representatives was granted by the Governor-General, acting on the advice of the Cabinet and under Section 57 of the Constitution. The date of elections for both Houses was fixed for 18 May 1974, writs being issued by the Governor-General on 20 April 1974. For voting figures *see* page 86. For particulars of electors enrolled and of electors who voted in the several States and Territories at previous elections for the Australian Parliament, *see* Year Book No. 58 and earlier issues.

A special article describing the Commonwealth Parliament, its functions and procedure, prepared by the Clerk of the Senate and the Clerk of the House of Representatives, appears in Year Book No. 49, pages 65–71.

Qualifications for membership and for franchise—Australian Parliament

Qualifications necessary for membership of either House of the Australian Parliament are possessed by any British subject, eighteen* years of age or over and not disqualified on other grounds, who has resided in Australia for at least three years and who is, or is qualified to become an elector of the Australian Parliament. Qualifications for Australian Parliament franchise are possessed by any British subject, not under eighteen* years of age and not disqualified on other grounds, who has lived in Australia for six months continuously. Residence in a Subdivision for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory except that the compulsory enrolment provisions do not relate to an Aboriginal native of Australia. A member of the Defence Force on service outside Australia who is not less than eighteen* years of age, is a British subject and has lived in Australia for six months continuously is entitled to vote at Australian Parliament elections even though he may not be enrolled.

* The age for candidature and the franchise age were lowered from 21 years to 18 years by Act No. 7 of 1973.

The principal reasons for disqualification of persons otherwise eligible for election as members of either Australian House are: membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding an office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Australian Government except as a member of an incorporated company of more than twenty-five persons. Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer, or persons who are holders of temporary entry permits under the *Migration Act* 1958–1966 or are prohibited immigrants under that Act are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise. Aborigines are entitled to enrol and to vote at both Australian and State elections in all States.

Australian Parliaments and elections

From the establishment of the Commonwealth of Australia until 1949 the Senate consisted of thirty-six members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament, and, as the population of Australia had more than doubled since its inception, the Parliament passed the *Representation Act* 1948 which provided that there should be ten Senators from each State instead of six, increasing the total to sixty Senators, thus enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation.

In accordance with the Constitution the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate.* Consequently, in terms of the Constitution and the Representation Act, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows: New South Wales—from 28 to 47; Victoria—from 20 to 33, Queensland—from 10 to 18; South Australia—from 6 to 10; and Western Australia—from 5 to 8. Tasmania's representation remained at 5 (the Constitution provides for a minimum of 5 members for each Original State). The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. Redistributions are carried out by distribution commissioners appointed for each State. The redistributions are effected on a quota basis, but taking into account community interests, means of communication, physical features, existing boundaries, and other factors.

The population as disclosed by the Census taken on 30 June 1954 necessitated a further alteration in representation in the House of Representatives in respect of New South Wales, South Australia, and Western Australia. Representation as from the general election for the House of Representatives on 10 December 1955 was: New South Wales 46, Victoria 33, Queensland 18, South Australia 11, Western Australia 9, Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 121 to 122.

The population as disclosed by the Census taken on 30 June 1961 revealed that, under the provisions of the Representation Act, New South Wales, Queensland, and Western Australia would each lose one member in the House of Representatives, while Victoria would gain a member. The distribution commissioners' reports were duly laid before both Houses of Parliament, but the Government decided not to proceed with the proposals and announced that it would amend the Representation Act. In November 1964 the formula provided by Section 10 of the Representation Act for determining the number of members of the House of Representatives was amended so as to give a State an additional member for 'any portion of a quota'. The effect of that amendment would have been that at the next redistribution Victoria and South Australia would each gain one member while all other States would retain their existing representation. However, no fresh redistribution was effected prior to the 1966 Census. Subsequent upon the population changes disclosed by the Census taken on 30 June 1966, a redistribution of the State electoral division boundaries was carried out in 1968 and the following representation in the House of Representatives became effective as from the general election held on 25 October 1969: New South Wales 45, Victoria 34, Queensland 18, South Australia 12, Western Australia 9 and Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 122 to 123.

The population as disclosed by the Census taken on 30 June 1971 revealed that, under the provisions of the Representation Act, Western Australia would gain an additional member of the House of Representatives as from the next general elections following a redistribution of the electoral boundaries in that State. Subsequently, Distribution Commissioners for that State were appointed, and published their final recommendations on 13 February 1974. These recommendations, redistributing Western Australia into ten electoral Divisions for the House of Representatives, were approved by Parliament in April 1974. The new electoral boundaries were proclaimed by the Governor-General on 19 April 1974. The new division was named Tangney, in honour of Dame Dorothy Tangney, first woman member of the Senate.

* A proposal to alter the Constitution so that numbers of members of the House of Representatives might be increased without necessarily increasing the number of Senators was the subject of a referendum in March 1967, but was rejected. See Year Book No. 54, page 66, for results of the Referendum.

Since the general election of 1922 the Northern Territory has been represented by one member in the House of Representatives, and the Australian Capital Territory has had similar representation since the elections of 1949. The member for the Australian Capital Territory has had full voting rights since the first sitting of the twenty-sixth Parliament. In May 1968 the Northern Territory Representation Act was amended to give full voting rights to the Member for the Northern Territory effective from 15 May 1968, the day on which the Act received Royal Assent.

Following Parliament's approval of the Australian Capital Territory Representation (House of Representatives) Bill in October 1973, a Distribution Committee was appointed for the purpose of distributing the Australian Capital Territory into two electoral Divisions. On 19 March 1974 the Committee published an initial redistribution proposal.

By early April 1974 there was an indication that the House of Representatives would be dissolved before the Distribution Committee could complete its task, in which event the Australian Capital Territory would be deprived of any representation in the next Parliament. Accordingly the *Australian Capital Territory Representation (House of Representatives) Act 1974* was enacted to provide that the Territory be divided into two electoral divisions, adopting the boundaries recommended by the Distribution Committee on 19 March 1974. The 1974 House of Representative elections were held on those boundaries.

Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators the whole State constitutes the electorate. For the purpose of elections for the House of Representatives the State is divided into single electorates corresponding in number to the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Year Book.

The *Commonwealth Electoral Act 1948*, enacted with the *Representation Act 1948* which enlarged the Australian Parliament (see page 85), changed the system of scrutiny and counting of votes in Senate elections from the alternative vote to that of proportional representation. For a description of the system, see Year Book No. 38, pages 82-3. The method of voting for both the Senate and the House of Representatives is preferential.

Particulars of voting at Senate elections and elections for the House of Representatives up to 1969 appear in earlier issues of the Year Book, and additional information is available in the *Statistical Returns* issued by the Chief Electoral Officer following each election and printed as Parliamentary Papers.

The numbers of electors and primary votes cast for the major political parties in each State and Territory at the latest election for each House of the Australian Parliament were as follows.

AUSTRALIAN PARLIAMENT ELECTIONS, 18 MAY 1974

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
HOUSE OF REPRESENTATIVES ELECTION									
Electors enrolled	2,834,558	2,161,474	1,154,762	750,308	612,016	246,453	36,480	101,455	7,897,506
Number of votes recorded for—									
Australian Labor Party	1,400,255	970,236	476,710	341,563	261,107	128,787	13,397	52,055	3,644,110
Liberal Party	887,202	738,236	330,365	256,904	233,240	103,701	..	33,320	2,582,968
Country Party/									
National Party*	282,169	151,707	255,659	28,903	..	..	14,514	3,300	736,252
National Alliance . . . . .	..	..	..	..	60,325	..	..	..	60,325
Liberal Movement . . . . .	..	..	..	57,817	..	..	..	..	57,817
Democratic Labor Party . . . . .	..	104,974	..	..	..	..	..	..	104,974
Australia Party	77,507	50,025	18,808	14,267	7,016	423	..	4,130	172,176
Others	10,959	12,082	1,741	2,669	1,726	767	1,557	883	32,384
Informal votes	44,811	43,633	15,118	20,311	14,575	4,213	852	1,249	144,762
Total votes recorded	2,702,903	2,070,893	1,098,401	722,434	577,989	237,891	30,320	94,937	7,535,768
SENATE ELECTION									
Electors enrolled	2,834,558	2,161,474	1,154,762	750,308	612,016	246,453	36,480	101,455	7,897,506
Number of votes recorded for—									
Australian Labor Party	1,184,993	859,078	451,623	303,461	230,181	103,701	13,397	52,055	3,644,110
Liberal-Country/									
National Party*	987,711	791,254	519,851	224,049	214,909	103,701	14,514	3,300	2,815,735
National Alliance . . . . .	..	..	..	..	55,301	..	..	..	55,301
Country Party . . . . .	..	..	..	..	19,959	..	..	10,459	30,418
Liberal Movement . . . . .	..	..	..	..	63,032	..	..	..	63,032
Liberal National Party . . . . .	..	23,965	..	..	..	..	..	..	23,965
Democratic Labor Party	67,670	118,728	41,394	5,768	..	..	..	1,783	235,343
Australia Party	40,541	29,456	12,795	6,507	2,808	..	..	..	92,107
Communist Party	11,202	2,595	..	6,786	..	..	..	..	20,583
Others	77,968	15,343	6,797	10,681	14,754	23,161	148,704	..	148,704
Informal votes	332,818	230,474	65,941	82,191	60,036	26,666	798,126	..	798,126
Total votes recorded	2,702,903	2,070,893	1,098,401	722,434	577,989	237,891	30,320	94,937	7,535,768

* Queensland only.

The Senate and House of Representatives Election, 18 May 1974

Membership at 9 July 1974 was: *Senate*—Australian Labor Party, 29; Liberal Party of Australia, 23; Australian Country Party, 6; Independent, 1; Liberal Movement, 1; *House of Representatives*—Australian Labor Party, 66; Liberal Party of Australia, 40; Australian Country Party, 21.

Members of the Australian Parliament

The following is a list of Senators and Members of the House of Representatives of the Australian Parliament at 9 July 1974. Changes since that date are set out in the Appendix to this volume. Party affiliation is indicated by the use of the following abbreviations:

- A.L.P.—Australian Labor Party
- C.P.—Australian Country Party
- Ind.—Independent
- L.M.—Liberal Movement
- L.P.—Liberal Party of Australia

MEMBERS OF THE AUSTRALIAN PARLIAMENT, 9 JULY 1974(a)

THE SENATE

President:

SENATOR THE HON. J. O'BYRNE

Chairman of Committees:

SENATOR J. J. WEBSTER

Leader of the Government in the Senate:

SENATOR THE HON. L. K. MURPHY, Q.C.

Leader of the Opposition in the Senate:

SENATOR R. G. WITHERS

<i>Senator</i>	<i>State</i>	<i>Term(b) expires 30 June</i>	<i>Senator</i>	<i>State</i>	<i>Term(b) expires 30 June</i>
Anderson, Hon. Sir Kenneth, K.B.E. (L.P.)	N.S.W.	1976	Lawrie, A. G. E. (C.P.)	Qld	1976
Baume, P. E. (L.P.)	N.S.W.	1976	McAuliffe, R. E. (A.L.P.)	Qld	1976
Bessell, E. J. (L.P.)	Tas.	1976	McClelland, Hon. D. (A.L.P.)	N.S.W.	1979
Bishop, Hon. R. (A.L.P.)	S.A.	1979	McClelland, J. R. (A.L.P.)	N.S.W.	1976
Bonner, N. T. (L.P.)	Qld	1979	McIntosh, G. D. (A.L.P.)	W.A.	1976
Brown, W. W. C. (A.L.P.)	Vic.	1979	McLaren, G. T. (A.L.P.)	S.A.	1976
Button, J. N. (A.L.P.)	Vic.	1979	Marriott, Hon. J. E. (L.P.)	Tas.	1976
Cameron, D. N. (A.L.P.)	S.A.	1976	Martin, Kathryn J. (L.P.)	Qld	1976
Carrick, J. L. (L.P.)	N.S.W.	1979	Maunsell, C. R. (C.P.)	Qld	1979
Cavanagh, Hon. J. L. (A.L.P.)	S.A.	1979	Melzer, Jean I. (A.L.P.)	Vic.	1976
Chaney, F. M. (L.P.)	W.A.	1976	Milliner, B. R. (A.L.P.)	Qld	1979
Coleman, Ruth N. (A.L.P.)	W.A.	1976	Missen, A. J. (L.P.)	Vic.	1976
Cormack, Hon. Sir Magnus, K.B.E. (L.P.)	Vic.	1979	Mulvihill, J. A. (A.L.P.)	N.S.W.	1979
Cotton, Hon. R. C. (L.P.)	N.S.W.	1979	Murphy, Hon. L. K., Q.C. (A.L.P.)	N.S.W.	1979
Davidson, G. S. (L.P.)	S.A.	1976	O'Byrne, J. (A.L.P.)	Tas.	1979
Devitt, D. M. (A.L.P.)	Tas.	1979	Poyser, A. G. (A.L.P.)	Vic.	1976
Drake-Brockman, Hon. T. C., D.F.C. (C.P.)	W.A.	1979	Primmer, C. G. (A.L.P.)	Vic.	1979
Drury, A. J. (A.L.P.)	S.A.	1976	Rae, P. E. (L.P.)	Tas.	1979
Durack, P. D. (L.P.)	W.A.	1976	Scott, D. B. (C.P.)	N.S.W.	1976
Everett, M. G., Q.C. (A.L.P.)	Tas.	1976	Sheil, G. (C.P.)	Qld	1976
Georges, G. (A.L.P.)	Qld	1979	Sim, J. P. (L.P.)	W.A.	1979
Gietzelt, A. T. (A.L.P.)	N.S.W.	1976	Townley, M. (Ind.)	Tas.	1976
Greenwood, Hon. I. J., Q.C. (L.P.)	Vic.	1979	Walsh, P. A. (A.L.P.)	W.A.	1976
Grimes, D. J. (A.L.P.)	Tas.	1976	Webster, J. J. (C.P.)	Vic.	1979
Guilfoyle, Margaret G. C. (L.P.)	Vic.	1976	Wheeldon, Hon. J. M. (A.L.P.)	W.A.	1979
Hall, Hon. R. S. (L.M.)	S.A.	1979	Willesee, Hon. D. R. (A.L.P.)	W.A.	1979
Jessop, D. S. (L.P.)	S.A.	1976	Withers, R. G. (L.P.)	W.A.	1979
Keefe, J. B. (A.L.P.)	Qld	1976	Wood, I. A. C. (L.P.)	Qld	1979
Laucke, C. L. (L.P.)	S.A.	1979	Wriedt, Hon. K. S. (A.L.P.)	Tas.	1979
			Wright, Hon. R. C. (L.P.)	Tas.	1979
			Young, H. W. (L.P.)	S.A.	1979

(a) For later changes see Appendix. (b) Senators are elected for a term of six years on a rotational basis; the terms of half the Senators expire every third year.

MEMBERS OF THE AUSTRALIAN PARLIAMENT

9 JULY 1974—*continued*THE HOUSE OF REPRESENTATIVES
(Triennial Parliaments—Last General Election
18 May 1974)*Speaker:*

THE HON. J. F. COPE, M.P.

Chairman of Committees:

G. G. D. SCHOLES, M.P.

Leader of the House:

THE HON. F. M. DALY, M.P.

Leader of the Opposition:

THE RT HON. B. M. SNEDDEN, Q.C., M.P.

<i>Member</i>	<i>Division</i>	<i>Member</i>	<i>Division</i>
Adermann, A. E. (C.P.)	Fisher (Q.)	Daly, Hon. F. M. (A.L.P.)	Grayndler (N.S.W.)
Anthony, Rt Hon. J. D. (C.P.)	Richmond (N.S.W.)	Davies, R. (A.L.P.)	Braddon (T.)
Armitage, J. L. (A.L.P.)	Chifley (N.S.W.)	Dawkins, J. S. (A.L.P.)	Tangney (W.A.)
Barnard, Hon. L. H. (A.L.P.)	Bass (T.)	Drummond, P. H. (L.P.)	Forest (W.A.)
Beazley, Hon. K. E. (A.L.P.)	Fremantle (W.A.)	Drury, E. N., C.B.E. (L.P.)	Ryan (Q.)
Bennett, A. F. (A.L.P.)	Swan (W.A.)	Duthie, G. W. A. (A.L.P.)	Wilmot (T.)
Berinson, J. M. (A.L.P.)	Perth (W.A.)	Edwards, H. R. (L.P.)	Berowra (N.S.W.)
Bonnett, R. N. (L.P.)	Herbert (Q.)	Ellicott, R. J. (L.P.)	Wentworth (N.S.W.)
Bourchier, J. W. (L.P.)	Bendigo (V.)	Enderby, Hon. K. E. (A.L.P.)	Canberra (A.C.T.)
Bowen, Hon. L. F. (A.L.P.)	Kingsford-Smith (N.S.W.)	England, J. A., E.D. (C.P.)	Calare (N.S.W.)
Bryant, Hon. G. M., E.D. (A.L.P.)	Wills (V.)	Erwin, Hon. G. D. (L.P.)	Ballaarat (V.)
Bungey, M. H. (L.P.)	Canning (W.A.)	Everingham, Hon. D. N. (A.L.P.)	Capricornia (Q.)
Cadman, A. G. (L.P.)	Mitchell (N.S.W.)	Fairbairn, Hon. D. E., D.F.C. (L.P.)	Farrer (N.S.W.)
Cairns, Hon. J. F. (A.L.P.)	Lalor (V.)	Fisher, P. S. (C.P.)	Mallee (V.)
Cairns, Hon. K. M. (L.P.)	Lilley (Q.)	FitzPatrick, J. (A.L.P.)	Darling (N.S.W.)
Calder, S. E., D.F.C. (C.P.)	Northern Territory	Forbes, Hon. A. J., M.C. (L.P.)	Barker (S.A.)
Cameron, Hon. C. R. (A.L.P.)	Hindmarsh (S.A.)	Fraser, Hon. J. M. (L.P.)	Wannon (V.)
Cameron, D. M. (L.P.)	Griffith (Q.)	Fry, K. L. (A.L.P.)	Fraser (A.C.T.)
Cass, Hon. M. H. (A.L.P.)	Maribyrnong (V.)	Fulton, W. J. (A.L.P.)	Leichhardt (Q.)
Child, Gloria J. L. (A.L.P.)	Henty (V.)	Garland, Hon. R. V. (L.P.)	Curtin (W.A.)
Chipp, Hon. D. L. (L.P.)	Hotham (V.)	Garrick, H. J. (A.L.P.)	Batman (V.)
Clayton, G. (A.L.P.)	Isaacs (V.)	Giles, G. O'H. (L.P.)	Angas (S.A.)
Coates, J. (A.L.P.)	Denison (T.)	Gorton, Rt Hon. J. G., C.H. (L.P.)	Higgins (V.)
Cohen, B. (A.L.P.)	Robertson (N.S.W.)	Graham, B. W. (L.P.)	North Sydney (N.S.W.)
Collard, F. W. (A.L.P.)	Kalgoorlie (W.A.)	Gun, R. T. (A.L.P.)	Kingston (S.A.)
Connolly, D. M. (L.P.)	Bradfield (N.S.W.)	Hayden, Hon. W. G. (A.L.P.)	Oxley (Q.)
Connor, Hon. R. F. X. (A.L.P.)	Cunningham (N.S.W.)	Hewson, H. A. (C.P.)	McMillan (V.)
Cope, Hon. J. F. (A.L.P.)	Sydney (N.S.W.)	Hodges, J. C. (L.P.)	Petrie (Q.)
Corbett, J. (C.P.)	Maranoa (Q.)	Holten, Hon. R. McN. (C.P.)	Indi (V.)
Crean, Hon. F. (A.L.P.)	Melbourne Ports (V.)		
Cross, M. D. (A.L.P.)	Brisbane (Q.)		

(a) For later changes see Appendix.

MEMBERS OF THE AUSTRALIAN PARLIAMENT
9 JULY 1974(a)—*continued*
THE HOUSE OF REPRESENTATIVES—*continued*

<i>Member</i>	<i>Division</i>	<i>Member</i>	<i>Division</i>
Howard, J. W. (L.P.)	Bennelong (N.S.W.)	Morrison, Hon. W. L. (A.L.P.)	St George (N.S.W.)
Hunt, Hon. R. J. D. (C.P.)	Gwydir (N.S.W.)	Mulder, A. W. (A.L.P.)	Evans (N.S.W.)
Hurford, C. J. (A.L.P.)	Adelaide (S.A.)	Nicholls, M. H. (A.L.P.)	Bonython (S.A.)
Hyde, J. M. (L.P.)	Moore (W.A.)	Nixon, Hon. P. J. (C.P.)	Gippsland (V.)
Innes, U. E. (A.L.P.)	Melbourne (V.)	O'Keefe, F. L. (C.P.)	Paterson (N.S.W.)
Jacobi, R. (A.L.P.)	Hawker (S.A.)	Oldmeadow, M. W. (A.L.P.)	Holt (V.)
James, A. W. (A.L.P.)	Hunter (N.S.W.)	Patterson, Hon. R. A. (A.L.P.)	Dawson (Q.)
Jarman, A. W. (L.P.)	Deakin (V.)	Peacock, Hon. A. S. (L.P.)	Kooyong (V.)
Jenkins, H. A. (A.L.P.)	Scullin (V.)	Reynolds, L. J. (A.L.P.)	Barton (N.S.W.)
Johnson, L. K. (A.L.P.)	Burke (V.)	Riordan, J. M. (A.L.P.)	Phillip (N.S.W.)
Johnson, Hon. L. R. (A.L.P.)	Hughes (N.S.W.)	Robinson, E. L. (L.P.)	McPherson (Q.)
Jones, Hon. C. K. (A.L.P.)	Newcastle (N.S.W.)	Robinson, Hon. I. L. (C.P.)	Cowper (N.S.W.)
Katter, Hon. R. C. (C.P.)	Kennedy (Q.)	Ruddock, P. M. (L.P.)	Parramatta (N.S.W.)
Keating, P. J. (A.L.P.)	Blaxland (N.S.W.)	Scholes, G. G. D. (A.L.P.)	Corio (V.)
Kelly, Hon. C. R. (L.P.)	Wakefield (S.A.)	Sherry, R. H. (A.L.P.)	Franklin (T.)
Keogh, L. J. (A.L.P.)	Bowman (Q.)	Sinclair, Hon. I. McC. (C.P.)	New England (N.S.W.)
Kerin, J. C. (A.L.P.)	Macarthur (N.S.W.)	Snedden, Rt Hon. B. M. Q.C. (L.P.)	Bruce (V.)
Killen, Hon. D. J. (L.P.)	Moreton (Q.)	Staley, A. A. (L.P.)	Chisholm (V.)
King, Hon. R. S. (C.P.)	Wimmera (V.)	Stewart, Hon. F. E. (A.L.P.)	Lang (N.S.W.)
Klugman, R. E. (A.L.P.)	Prospect (N.S.W.)	Street, Hon. A. A. (L.P.)	Corangamite (V.)
Lamb, A. H. (A.L.P.)	LaTrobe (V.)	Sullivan, J. W. (C.P.)	Riverina (N.S.W.)
Lloyd, B. (C.P.)	Murray (V.)	Thorburn, R. W. (A.L.P.)	Cook (N.S.W.)
Luchetti, A. S. (A.L.P.)	Macquarie (N.S.W.)	Uren, Hon. T. (A.L.P.)	Reid (N.S.W.)
Lacock, P. E., C.B.E. (C.P.)	Lyne (N.S.W.)	Viner, R. I. (L.P.)	Stirling (W.A.)
Lusher, S. A. (C.P.)	Hume (N.S.W.)	Wallis, L. G. (A.L.P.)	Grey (S.A.)
Lynch, Hon. P. R. (L.P.)	Flinders (V.)	Wentworth, Hon. W. C. (L.P.)	Mackellar (N.S.W.)
MacKellar, M. J. R. (L.P.)	Warringah (N.S.W.)	Whan, R. B. (A.L.P.)	Eden-Monaro (N.S.W.)
McKenzie, D. C. (A.L.P.)	Diamond Valley (V.)	Whitlam, Hon. E. G., Q.C. (A.L.P.)	Werriwa (N.S.W.)
McLeay, Hon. J. E. (L.P.)	Boothby (S.A.)	Willis, R. (A.L.P.)	Gellibrand (V.)
McMahon, Rt Hon. W., C.H. (L.P.)	Lowe (N.S.W.)	Wilson, I. B. C. (L.P.)	Sturt (S.A.)
Macphee, I. M. (L.P.)	Balaclava (V.)	Young, M. J. (A.L.P.)	Port Adelaide (S.A.)
McVeigh, D. T. (C.P.)	Darling Downs (Q.)		
Martin, V. J. (A.L.P.)	Banks (N.S.W.)		
Mathews, C. R. T. (A.L.P.)	Casey (V.)		
Millar, P. C. (C.P.)	Wide Bay (Q.)		
Morris, P. F. (A.L.P.)	Shortland (N.S.W.)		

(a) For later changes see Appendix.

Referendums

In accordance with section 128 of the Constitution any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, must be submitted to a referendum of the electors in each State, and must be approved by a majority of the electors in a majority of the States and also by a majority of all the electors who voted, before it can be presented for Royal Assent. Thirty-two such proposals have so far been submitted to referendums and the consent of the electors has been received in five cases—the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928, the fourth in respect of Social Services in 1946, and the fifth in respect of Aborigines

in 1967. In addition to referendums for alterations of the Constitution, other Commonwealth referendums have been held—two prior to Federation regarding the proposed Constitution and two regarding military service during the 1914–1918 War. For details of earlier referendums see Year Book No. 52, pages 66–8.

On 17 and 26 September 1973 respectively, two Bills were introduced in the House of Representatives to alter the Constitution; one Bill being designed to grant the Australian Government control over prices, the other to grant similar control over incomes. The proposed laws, after being passed by both Houses of Parliament, were submitted to the electors of the States at referendums held on 8 December 1973. At these referendums the electors voted in all States to reject both proposed laws. A summary of the results of the voting follows.

CONSTITUTION ALTERATION REFERENDUMS, 8 DECEMBER 1973

State	Electors enrolled	Number of votes		Informal	Total
		In favour of the proposed law	Not in favour of the proposed law		
CONSTITUTION ALTERATION (PRICES) REFERENDUM					
New South Wales	2,827,989	1,257,499	1,332,485	28,689	2,618,673
Victoria	2,129,494	891,144	1,081,120	29,660	2,001,924
Queensland	1,128,417	402,506	643,770	9,023	1,055,299
South Australia	737,573	282,754	404,181	13,398	700,333
Western Australia	588,789	169,605	362,121	10,396	542,122
Tasmania	241,207	85,631	138,416	4,969	229,016
Total	7,653,469	3,089,139	3,962,093	96,135	7,147,367
CONSTITUTION ALTERATION (INCOMES) REFERENDUM					
New South Wales	2,827,989	1,041,429	1,542,217	35,027	2,618,673
Victoria	2,129,494	657,756	1,309,302	34,866	2,001,924
Queensland	1,128,417	331,163	713,562	10,574	1,055,299
South Australia	737,573	193,301	490,943	16,089	700,333
Western Australia	588,789	133,531	396,199	12,392	542,122
Tasmania	241,207	63,135	159,862	6,019	229,016
Total	7,653,469	2,420,315	4,612,085	114,967	7,147,367

In November 1973 four Bills were introduced in and passed by the House of Representatives to alter the Constitution. The Constitution Alteration (Simultaneous Elections) Bill was designed to ensure that future Senate elections would be held simultaneously with the House of Representatives elections. The Constitution Alteration (Mode of Altering the Constitution) Bill was designed to facilitate alterations to the Constitution and to allow electors in the Territories, as well as electors in the States, to vote on proposed laws to alter the Constitution. The Constitution Alterations (Democratic Elections) Bill was designed to ensure that members of the House of Representatives and of the State Parliaments would be 'chosen directly and democratically by the People'. The Constitution Alteration (Local Government Bodies) Bill was designed to enable the Australian Government to borrow money for, and to grant financial assistance to, local government bodies.

On 4 December 1973 the Senate referred the first of these proposed laws to its Standing Committee on Constitutional and Legal Affairs; amended the second; and rejected the third and fourth. On 6 March 1974 four proposed laws were passed a second time by the House of Representatives. On 13 March 1974 the Senate rejected the Constitution Alteration (Simultaneous Elections) and Constitution Alteration (Local Government Bodies) Bills; and, on 14 March 1974, rejected the Constitution Alteration (Democratic Elections) Bill and amended the Constitution Alteration (Mode of Altering the Constitution) Bill. On 21 March 1974 the Prime Minister announced that, acting under section 128 of the Constitution, the Governor-General had accepted the Government's advice to submit these four proposed laws to the electors of the States at referendums to be held on 18 May 1974, simultaneously with the general election. Particulars of the voting at the referendums are shown on page 91.

CONSTITUTION ALTERATION REFERENDUMS, 18 MAY 1974

State	Electors enrolled	Number of votes		Informal	Total
		In favour of the proposed law	Not in favour of the proposed law		
CONSTITUTION ALTERATION (SIMULTANEOUS ELECTIONS) REFERENDUM					
New South Wales	2,834,558	1,359,485	1,303,117	40,301	2,702,903
Victoria	2,161,474	1,001,111	1,033,969	35,813	2,070,893
Queensland	1,154,762	481,092	604,444	12,865	1,098,401
South Australia	750,308	332,369	372,666	17,399	722,434
Western Australia	612,016	248,860	315,786	13,343	577,989
Tasmania	246,596	96,793	137,156	3,942	237,891
Total	7,759,714	3,519,710	3,767,138	123,663	7,410,511
CONSTITUTION ALTERATION (MODE OF ALTERING THE CONSTITUTION) REFERENDUM					
New South Wales	2,834,558	1,367,476	1,295,621	39,806	2,702,903
Victoria	2,161,474	1,001,753	1,033,486	35,654	2,070,893
Queensland	1,154,762	480,926	604,816	12,659	1,098,401
South Australia	750,308	311,954	392,891	17,589	722,434
Western Australia	612,016	240,134	324,435	13,420	577,989
Tasmania	246,596	95,264	138,674	3,953	237,891
Total	7,759,714	3,497,507	3,789,923	123,081	7,410,511
CONSTITUTION ALTERATION (DEMOCRATIC ELECTIONS) REFERENDUM					
New South Wales	2,834,558	1,345,983	1,316,837	40,083	2,702,903
Victoria	2,161,474	970,903	1,064,023	35,967	2,070,893
Queensland	1,154,762	474,337	611,135	12,929	1,098,401
South Australia	750,308	310,839	393,857	17,738	722,434
Western Australia	612,016	241,946	322,587	13,456	577,989
Tasmania	246,596	95,463	138,430	3,998	237,891
Total	7,759,714	3,439,471	3,846,869	124,171	7,410,511
CONSTITUTION ALTERATION (LOCAL GOVERNMENT BODIES) REFERENDUM					
New South Wales	2,834,558	1,350,274	1,308,039	44,590	2,702,903
Victoria	2,161,474	961,664	1,068,120	41,109	2,070,893
Queensland	1,154,762	473,465	610,537	14,399	1,098,401
South Australia	750,308	298,489	403,479	20,466	722,434
Western Australia	612,016	229,337	334,529	14,123	577,989
Tasmania	246,596	93,495	140,073	4,323	237,891
Total	7,759,714	3,406,724	3,864,777	139,010	7,410,511

The Parliaments of the States

This chapter contains summarised information on the Parliaments of each State, the numbers of Houses and members, and salaries payable. For greater detail, including some historical material, reference should be made to earlier Year Books, particularly No. 50, pages 69-72. Recent changes have been reported in successive issues of the Year Book.

Membership of State Parliaments. The following table shows the party distribution in each of the various State Parliaments at the beginning of 1974.

STATE PARLIAMENTS: MEMBERSHIP, BY PARTY AFFILIATION, 1 JANUARY 1974

<i>Party</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>
UPPER HOUSE						
Australian Country Party (C.P.)	13	6	..	..	..	..
Australian Labor Party (A.L.P.)	24	9	..	6	9	2
Independent (Ind.)	3	..	..	..	..	17
Liberal and Country League (L.C.L.)	..	..	..	13	..	..
Liberal Movement (L.M.)	..	..	..	1	..	..
Liberal Party of Australia (L.P.)	20	21	..	..	(a)18	..
National Alliance (N.A.)(b)	..	..	..	..	3	..
Total	60	36	(c)	20	30	19
LOWER HOUSE						
Australian Country Party (C.P.)	18	8	26	1	..	..
Australian Labor Party (A.L.P.)	44	18	33	26	22	21
Democratic Labor Party (D.L.P.)	1	..	..	..	..	..
Independent (Ind.)	2	..	1	..	..	..
Independent Labor (Ind. Lab.)	..	1	..	..	..	..
Liberal and Country League (L.C.L.)	..	..	..	18	..	..
Liberal Movement (L.M.)	..	..	..	2	..	..
Liberal Party of Australia (L.P.)	34	46	21	..	23	14
National Alliance (N.A.) (b)	..	..	..	..	6	..
North Queensland Labor Party (N.Q.L.P.)	..	..	1	..	..	..
Total	(d)99	73	82	47	51	35

(a) Formerly Liberal and Country League, which changed its name on 15 July 1968 to The Liberal Party of Australia (Western Australian Division) Incorporated. (b) Formerly the Country Party of Western Australia and the Democratic Labor Party. (c) Upper House abolished in 1922. (d) Increased from 96 to 99 by the Parliamentary Electorates and Elections (Amendment) Act, 1973 proclaimed on 8 May 1973.

The Australian Country Party: Queensland is shown above as the Australian Country Party, since it is affiliated with the Federal body.

For corresponding particulars for the Australian Parliament, see page 87.

Number and salary of members of the legislatures, Australian parliaments, January 1974

AUSTRALIAN PARLIAMENTS: MEMBERS AND ANNUAL SALARIES, 1 JANUARY 1974

<i>Members in—</i>	<i>Australia</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Total</i>
NUMBER OF MEMBERS								
Upper House	60	60	36	(a)	20	30	19	225
Lower House	125	99	73	82	47	51	35	512
Total	185	159	109	82	67	81	54	737
ANNUAL SALARY								
(\$)								
Upper House	(b)14,500	(c)5,200	(d)14,000	(a)	(e)12,000	(f)10,436	(g)12,671	..
Lower House	(b)14,500	(h)14,400	(d)14,000	(i)12,180	(e)12,000	(f)10,436	(g)12,671	..

(a) Abolished in 1922. (b) As at 1 April 1973. Plus expense allowances—Senators and Members of the House of Representatives, \$4,100. Certain additional allowances are also provided for holders of parliamentary offices, etc. (c) As from 1 January 1974. Plus allowance of \$2,400. An additional \$32 per day is payable to members who live outside the metropolitan area. (d) Plus allowance from \$3,000 for metropolitan to \$3,500 for urban, \$3,900 for inner country, and \$4,300 for outer country electorates. (e) Plus an allowance varying from \$1,800 to \$3,900 according to location of electorate. (f) Plus expense reimbursement ranging from \$2,000 for a metropolitan member to \$4,100 for a north province member. (g) Plus allowance according to area of electorate and distance from the capital varying from 11 to 35 per cent of basic salary. (h) As from 1 January 1974. Plus allowance varying from \$3,300 to \$4,920 according to location of electorate. (i) Plus individual electoral allowances ranging from \$2,010 to \$4,920.

Outlay on parliamentary government

The table below shows, in broad groups, the expenditure incurred in the operation of the parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activities; *it does not attempt to cover the expenditure on Australian and State administration generally*. Only broad groups are shown, but even these are not entirely comparable because of differences in accounting procedures and in the presentation of accounts. Expenditure under the head of Governor-General or Governor includes salaries of Government House staffs and maintenance of residences, official establishments, grounds, etc., and expenditure on capital works and services.

OUTLAY ON PARLIAMENTARY GOVERNMENT, 1972-73 (\$'000)

Expenditure group	Aust.	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Governor-General or Governor(a)	606	266	314	419	237	130	160	2,130
Ministry(b)	819	536	383	224	196	329	236	2,724
Parliament—								
Upper House(c)	1,072	468	408	..	213	469	172	2,802
Lower House(c)	2,110	1,376	783	1,151	487	549	269	6,725
Both Houses(d)	6,838	1,796	1,595	869	1,030	766	295	13,189
Miscellaneous(e)	5,455	522	165	139	137	2	57	6,477
Total, Parliament	15,475	4,162	2,950	2,160	1,867	1,786	793	29,193
Electoral(f)	6,162	346	657	376	349	213	107	8,210
Royal Commissions, Select Committees, etc.	453	..	185	4	28	59	20	749
Grand Total	23,515	5,310	4,490	3,182	2,677	2,516	1,316	43,006

(a) Salaries and other expenses, including maintenance of house and grounds. (b) Salaries, travelling and other expenses as ministers. (c) Allowances to members (including ministers' salaries as members), travelling and other expenses. (d) Government contribution to members' superannuation funds, printing, reporting staff, library, etc. (e) Services, furniture, stores, etc. (f) Salaries, cost of elections, etc.

OUTLAY ON PARLIAMENTARY GOVERNMENT

Year	Aust.	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
TOTAL (\$'000)								
1968-69	13,047	3,163	2,688	2,048	1,581	1,766	1,063	25,35
1969-70	15,602	4,062	3,349	1,974	1,757	1,889	1,035	29,66
1970-71	18,064	4,299	3,883	2,082	2,356	2,305	1,249	34,23
1971-72	18,432	4,520	3,475	2,717	2,436	2,486	1,327	35,39
1972-73	23,515	5,310	4,490	3,182	2,677	2,516	1,316	43,00

PER HEAD OF POPULATION

	(\$)							
1968-69	1.07	0.72	0.80	1.17	1.40	1.89	2.78	2.09
1969-70	1.26	0.90	0.98	1.11	1.53	1.94	2.68	2.39
1970-71	1.43	0.94	1.12	1.15	2.02	2.27	3.21	2.71
1971-72	1.43	0.97	0.98	1.47	2.06	2.38	3.38	2.74
1972-73	1.70	1.13	1.26	1.68	2.24	2.36	3.33	3.11

Australian Government Departments

In Year Book No. 49 (pages 87–98) a list appears of the Australian Government Departments as at the end of 1962, giving particulars of each Department, the principal matters dealt with and the Acts administered by the Minister concerned. Changes made during 1963 and 1966 are shown on page 83 of Year Book No. 50 and page 74 of Year Book No. 53 respectively. Changes made during 1968 are shown in the Appendix to Year Book No. 54 (pages 1276–7). A list of Australian Government Departments and their functions was shown in Year Book No. 59 (pages 76–79, 1076). For current detailed information on the Acts administered, the functions and the organisation of the Departments and Agencies of the Australian Government *see the Australian Government Directory* (latest issue 1975).

Enactments of the Parliaments

In the Australian Parliament all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Australian Parliament is empowered to make laws are enumerated in the Constitution. In the States other than South Australia and Tasmania, laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania laws are enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. Generally, assent to Bills passed by the legislatures is given by the Governor-General or State Governor acting on behalf of, and in the name of, the Sovereign. In certain special cases Bills are reserved for the Royal assent. The Parliaments of the States are empowered generally, subject to the Australian Constitution, to make laws in and for their respective States in all cases whatsoever. Subject to certain limitations they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Australian Parliament the latter prevails, and the former is to the extent of the inconsistency invalid.

The course of Australian Parliament legislation

The actual legislation by the Australian Parliament during 1973 is indicated in alphabetical order in *The Acts of the Parliament of the Commonwealth of Australia passed during the year 1973 in the Second Session of the Twenty-seventh Parliament of the Commonwealth, with Appendix, Tables and Index*. A chronological table of Acts passed from 1901 to 1973 showing how they are affected by subsequent legislation or lapse of time is also given, and, further, a table of legislation of the Australian Parliament passed from 1901 to 1973 in relation to the several provisions of the Constitution is furnished in the same volume. Reference should be made to these for complete information.

The following figures indicate the variation over the years in the number of enactments of the Australian Parliament since 1901. Seventeen Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939, 109 in 1952, 156 in 1965, 157 in 1968, 139 in 1972, and 223 in 1973.

CHAPTER 4

DEFENCE

Department of Defence

Central Organisation for Defence

Until November 1973 there existed a Defence Group of departments (*see* Year Book No. 59, 1973) consisting of the Departments of Navy, Army, Air and Supply which, together with the Armed Services, were co-ordinated by the Department of Defence. On 30 November 1973, the Government merged the three Service Departments together with the Department of Defence.

On 4 December 1973, the Minister for Defence made a statement announcing the Government's acceptance of a report recommending an integrated and functional organisation for the new Department of Defence. At the time of writing, a major reorganisation of the Department is proceeding. Legislation is being introduced to abolish the Navy Board, Military Board and Air Board. The Defence Forces, which retain their identity, are each headed by a Chief of Staff, responsible to the Minister for Defence through a Chief of Defence Force Staff (and subject to defence policies and manpower and financial resources) for the operational control and command, fighting efficiency and training of his Service.

The Chief of Defence Force Staff is to be a statutory officer in the Department of Defence, responsible directly to the Minister for the command of the Navy, Army and Air Force. This officer replaces and absorbs the previous functions and appointments of the Chairman, Chiefs of Staff Committee. The Chief of Defence Force Staff is to be provided with a Military Planning and Operations Staff.

The reorganisation contemplates greater control of military matters by the Chief of Defence Force Staff and, under the Minister for Defence, greater departmental control of supply, determination of the size and equipment of the Defence Force, policy on training and education, determination of establishments and conditions of service and management of scientific services.

Functions of the Department of Defence

The functions of the Department of Defence will include all aspects of defence policy, co-ordination of the defence tasks of the Department of Supply, and direction of execution of defence policy by the Armed Services: the Royal Australian Navy, the Australian Army, and the Royal Australian Air Force. More specifically, the functions of the Department include strategic appreciations, national intelligence assessments and strategic intelligence reports; defence planning, systems analysis and formulating policy on force structure and force deployment; administrative policy and military advice for the Minister for Defence; organisation of collective military advice; planning and control of military operations; defence programming, resources allocation and expenditure control; scientific advice and formulation of defence research and development policy; policy relating to defence industry, facilities and procurement; rationalisation of Service activities and co-ordination of their policies; pay, allowances and conditions of service in the Armed Services and during retirement; establishments, postings and promotions; legislation concerning the Armed Services; public relations; Defence and Service advisers abroad; defence electronic data processing; civil defence.

Higher defence machinery

Because of the essentially joint nature of most military operations, and because important decisions on defence matters can best be reached by consultation between all interested parties, defence administration is traditionally carried out at the highest levels through a series of committees comprising members of the Services, Defence and other departments. The following are to be the principal committees of the Department, and their functions.

The *Defence Co-ordination Committee* will advise the Minister for Defence on those general defence policies whose formation calls for presentation of co-ordinated information and advice about the strategic, military, foreign affairs and economic aspects of defence.

The *Defence Program Committee* will review the Five Year Defence Program and the annual Defence estimates as prepared by the staff, and convey collective or individual comments to the Minister. The Committee will exchange views and review progress in the development of the Defence Program; provide to the Minister and Defence Department staff collective or individual opinion on the major weapons systems proposed in the Five Year Defence Program; and provide a forum for discussion of defence policy implications of military operations.

The *Chiefs of Staff Committee* is to be responsible to the Minister for Defence, through the Chief of Defence Force Staff for providing collective military advice on military operations and on the military implications of defence policy and activities. It endorses military plans, and the military aspects of policies concerning joint service units and installations. It recommends the allocation of resources to designated commanders engaged in joint operations. It provides collective advice concerning the control and administration of special forces of a multi-national nature, the responsibility for which is assigned to the Australian Government, subject to such control conforming to the principles and procedures of the established machinery of government and administration.

The *Defence Management Committee* will provide a forum for discussion of matters of general interest.

The *Plans and Operations Executive* will deal with military planning, operational and training matters which concern the Chief of Defence Force Staff or Chiefs of Staff Committee.

The *Defence Force Structure Committee* will provide advice to the Defence Program Committee and participate in decision making on the development of the force structure, Five Year Defence Program and major equipment proposals, and keep these matters under review.

The *Defence Operational Requirements Group* will endorse guidelines on capabilities for development of staff targets, endorse staff targets prepared by Services; and consider service Staff requirements, approving them for definition and development.

The *Program and Estimates Committee* will review the annual draft Defence Program and Estimates and make recommendations to the Defence Program Committee.

The *Defence (Conditions of Service) Committee* considers and makes recommendations to the Minister for Defence and, in the case of major proposals, to the Treasurer, concerning rates of pay and financial conditions of service of personnel of the Defence Force.

The *Defence Science Board* considers, in the context of Defence objectives, major issues concerning the policy for defence science including its relationship to other national interests.

The *Dockyard Policy Committee* will review the financial management, work programming, personnel management and industrial relations and facilities, and equipment planning aspects of the Dockyards' activities.

The *Defence Research, Development, Trials and Evaluation Review Committee* is to consider and recommend policy guidelines for the Research, Development, Trials and Evaluation Program; draw attention to developments which may affect defence policy; and recommend new projects of a continuing nature estimated to cost more than \$1 million per annum or, over their expected life span, more than \$2.5 million.

It is expected that the *Defence (Industrial) Committee* and a *Defence Business Board* will continue (see Year Book No. 59, page 86) but the form and composition of these bodies has not yet been decided.

Basis of current defence policy

The primary aim of Australian defence policy is to ensure the security of Australia and her Territories.

Defence policy is to maintain a substantial level of defence forces, to promote self reliance and to maintain relations in the defence field with allies and regional associates. Australia participates in the ANZUS alliance, the Five Power arrangements and SEATO. In a period assessed as having low-threat probability, the basic concept for the force structure is a core force in being of sufficient skills and capabilities to allow timely expansion should there be unfavourable developments in the strategic situation.

Personnel strengths

The selective national service scheme, which was in its eighth year of operation, was abolished with effect from 5 December 1972. Those serving under the scheme were given the opportunity of selecting immediate discharge, completing their term of full-time duty or transferring to the permanent force. Those persons eligible for national service selection who had opted to join the C.M.F. were given a similar opportunity in regard to their C.M.F. obligation.

PERSONNEL STRENGTHS OF DEFENCE FORCES

NAVY

<i>Strength at June—</i>	<i>Permanent Forces</i>	<i>Citizen Forces</i>	<i>Emergency Reserves</i>	<i>Total</i>
1964	12,569	5,202	..	17,771
1965	13,503	3,762	443	17,708
1966	14,714	3,797	686	19,197
1967	15,893	3,931	793	20,617
1968	16,454	4,047	904	21,405
1969	16,943	3,971	1,114	22,028
1970	17,304	4,462	897	22,663
1971	17,232	5,093	918	23,243
1972	17,134	5,378	921	23,433
1973	17,484	5,168	932	23,584
Estimated strength at June 1974	16,350	5,400	800	22,500

ARMY

<i>Strength at June—</i>	<i>Permanent Forces</i>		<i>Citizen Forces</i>	<i>Emergency Reserves</i>	<i>Total</i>
	<i>Australian Regular Army</i>	<i>Pacific Islands Regiment</i>			
1964	22,681	812	27,505	..	50,998
1965	25,314	1,415	28,146	288	55,163
1966	32,702	1,732	32,046	662	67,142
1967	41,464	2,246	34,670	889	79,269
1968	42,944	2,406	35,762	1,031	82,143
1969	44,051	2,474	34,256	981	81,762
1970	44,533	2,434	31,397	822	79,186
1971	43,769	2,593	29,364	657	76,383
1972	41,290	2,769	26,578	594	71,231
1973	33,990	3,013	22,592	527	60,122
Estimated strength at June 1974	30,100	2,900	19,500	450	52,950

AIR FORCE

<i>Strength at June—</i>	<i>Permanent Forces</i>	<i>Citizen Forces</i>	<i>Emergency Reserves</i>	<i>Total</i>
1964	16,564	926	..	17,490
1965	17,720	724	26	18,470
1966	19,358	865	170	20,393
1967	20,130	1,059	303	21,492
1968	21,564	907	397	22,868
1969	22,712	902	467	24,081
1970	22,642	841	668	24,151
1971	22,539	788	700	24,027
1972	22,720	778	621	24,119
1973	22,717	681	510	23,908
Estimated strength at June 1974	21,250	400	320	21,970

Equipment

An amount of \$152.0 million was spent on equipment of a capital nature in 1972-73; this included \$58.0 million under credit arrangements with the Government of the United States of America. An amount of \$112.1 million was expected to be spent in 1973-74.

The major equipment items received in 1972-73 by the Services included 1 hydrographic ship (H.M.A.S. *Flinders*), 4 heavy landing craft, 1 HS748 support and training aircraft, 5 light observation helicopters, 6 F111C and 3 Macchi aircraft.

Major new equipment items planned for delivery in 1973-74 include 3 heavy landing craft, 18 F111C aircraft, 6 Mirage IIID aircraft, 12 medium lift helicopters, 5 utility helicopters, 4 Nomad aircraft, 13 light observation helicopters, 1 HS748 aircraft, 12 Turana pilotless target aircraft.

Research and development

The laboratories of the Department of Supply together with the Services' own technical establishments, have continued to work on projects and investigations in support of Service needs. An extension to the arrangements for the conduct of the Woomera Range and its associated technical facilities has been jointly made with the United Kingdom, and collaborative programs in space tracking and other selected areas are being undertaken in association with the United States of America.

Defence expenditure

EXPENDITURE BY DEFENCE DEPARTMENTS AND SERVICES (\$'000)

	<i>Defence</i> (a)	<i>Navy</i>	<i>Army</i>	<i>Air</i>	<i>Supply</i>	<i>Other</i>	<i>Total</i>
Actual expenditure—							
1968-69	19,077	232,327	410,621	382,559	90,482	29,631	1,164,697
1969-70	23,440	241,140	409,386	301,162	94,091	33,841	1,103,060
1970-71	22,080	247,924	421,037	302,657	106,011	37,864	1,137,573
1971-72	25,789	270,243	465,792	303,239	112,262	39,750	1,217,075
1972-73—							
Total	32,766	293,094	445,061	352,185	123,520	38,648	1,285,274
Less—United States Credits . . . . .	..	4,138	4,853	48,605	384	..	57,980
Payments from appropriations	32,766	288,956	440,208	303,580	123,136	38,648	1,227,294
Estimated expenditure—							
1973-74	69,337	319,933	460,239	352,284	129,457	14,260	1,345,510

(a) Includes defence aid for Malaysia, Singapore and South Vietnam.

Logistic arrangement with the Government of the United States of America

The logistic arrangement referred to in Year Book No. 57, 1971 and earlier issues of the Year Book continues to apply. No new credits are being arranged.

Citizen and Reserve Forces

Citizen and Reserve Forces may be called out by proclamation for continuous full-time service in a 'time of defence emergency'. The particular circumstances giving rise to the proclamation of a time of defence emergency could be varied, but would occur in a situation where the Regular Forces needed the full-time support of the Citizen and Reserve Forces in hostilities short of general war.

The three Services also have volunteer Emergency Reserves which may be called out for continuous full-time service when they are needed. These reserves provide a ready means of supplementing and reinforcing operational units.

Australian forces serving overseas

As at 31 December 1973 the Australian element of the ANZUK Force in Malaysia and Singapore included:

Navy—One destroyer or destroyer escort present in the area at all times, and one submarine present for part of the year; and shore support units.

Army—One battalion of RAR; one field battery; elements of headquarters, signals and logistics units integrated with United Kingdom and New Zealand elements. However, the Government decided that the battalion and battery would not be replaced when their tour of duty was completed about the end of 1973, and these ground combat elements are being progressively withdrawn, leaving only a small residual Army element in Singapore.

Air Force—Two squadrons of Mirage fighter aircraft supporting elements based at Butterworth in Malaysia.

Defence co-operation with South-East Asian countries

In support of Australia's policy, the Government is pursuing major programs of defence co-operation with Indonesia, Malaysia and Singapore.

Current defence aid to Malaysia and Singapore, to which amounts of \$16 million and \$4 million respectively have been pledged for the period 1971–74, represents a continuation of programs first commenced in 1964. To date over \$52 million has been spent on these programs, comprising technical assistance projects and a wide range of equipment for the Malaysian and Singapore armed forces. As well, other projects in defence co-operation have been undertaken, most notably the provision of 16 refurbished Sabre jet fighters to the Royal Malaysian Air Force.

In 1972 a three year defence co-operation program of \$20 million with Indonesia was begun. The main projects undertaken so far have been the survey and mapping of Sumatra and provision of patrol boats and technical assistance to improve Indonesian maritime surveillance capacity. In addition 16 ex-R.A.A.F. Sabre aircraft have been given to Indonesia.

Both under the above defence aid and co-operation programs and in the context of defence assistance to countries of the region generally, Australia accepts large numbers of overseas trainees in Service training establishments. During 1973 the total was about 600 spread over all three Services.

Naval Defence

Prior to 1901, naval defence systems were organised under the State Governments. Information regarding these systems is given in Year Book No. 2, page 1094. An outline of the development of Australian naval policy is given in Year Books No. 3, page 1060, and No. 12, page 1012. An account appears in Year Book No. 15, pages 921–3, of the building of the Australian Navy, its costs, the compact with the Imperial Government, and other details. The growth and the activities of the Royal Australian Navy during the 1939–45 War are shown in Year Book No. 36, pages 1023–7.

Under the provisions of the Commonwealth of Australia Constitution Act the Minister of State for Defence administers the Department of Defence (Navy Office). Under the *Naval Defence Act* 1910–1973 the Royal Australian Navy is administered by the Naval Board. The Naval Board consists of the Minister for Defence (President), five Naval Members, and the Special Deputy, Department of Defence (Navy Office).

Strong links with the Royal Navy are maintained by a constant exchange of officers for extended tours of duty and by a full exchange of information and ideas. A liaison staff is maintained by the Royal Australian Navy in London and by the Royal Navy in Australia. Advanced training and staff courses in the United Kingdom are provided by the Royal Navy for Royal Australian Navy officers. A liaison staff is also maintained by the Royal Australian Navy in Washington, and a comprehensive exchange of information is provided by this link. Staff courses in the United States of America are also attended by officers of the Royal Australian Navy.

Ships of the Royal Australian Navy

The Fleet, December 1973: Melbourne—aircraft carrier; *Supply*—oiler; *Stalwart*—destroyer tender; *Perth, Hobart, Brisbane*—guided missile destroyers; *Vendetta, Vampire, Duchess, Anzac*—destroyers; *Yarra, Parramatta, Stuart, Derwent, Swan, Torrens*—destroyer escorts; *Teal*—coastal minesweeper; *Curlaw, Snipe*—coastal minehunters; *Moresby, Flinders*—surveying ships; *Diamantina, Kimbla*—oceanographic research ships; *Oxley, Otway, Onslow, Ovens*—submarines; *Attack, Aitape, Acute, Adroit, Advance, Archer, Ardent, Arrow, Assail, Aware, Barrette, Barricade, Bayonet, Bombard, Buccaneer, Ladava, Lae, Madang, Samarai*—patrol boats; *Banks, Bass*—auxiliaries; *Brunei, Labuan, Tarakan, Wewak, Salamaua, Buna, Betano*—heavy landing craft.

In operational reserve, December 1973: Hawk, Gull, Ibis—minesweepers.

During 1973 the ships *Melbourne, Brisbane, Perth, Vampire, Derwent, Supply, Stuart, Stalwart, Teal, Curlaw, Snipe, Swan*, made overseas visits. The submarines *Onslow and Ovens* also made overseas visits.

Fleet Air Arm

The Fleet Air Arm of the Royal Australian Navy maintains three front line squadrons for embarkation in the operational carrier H.M.A.S. *Melbourne*. These squadrons currently consist of Skyhawk A4-G fighter/ground attack aircraft, Tracker S2-E anti-submarine aircraft, and Wessex Mk31B anti-submarine helicopters. Four training and support squadrons are based at the Naval Air Station, at Nowra, New South Wales. Other aircraft operated by the Navy are the Scout helicopter in *Moresby*, Iroquois helicopter (training and search and rescue), Dakota, Macchi trainer.

Ship Construction and Repairs

There are two naval dockyards, one at Garden Island, New South Wales, and one at Williamstown, Victoria. Also the dockyard at Cockatoo Island, which is operated by the Vickers Cockatoo Dockyard Pty Ltd, by agreement with the Australian Government, carries out considerable naval work. All three dockyards carry out ship re-fitting for the Navy.

During 1973, the construction of H.M.A.S. *Flinders*, a small hydrographic ship, was completed. Also, the extended refits of two Daring Class Destroyers, *Vendetta* and *Duchess* were completed. Present and scheduled construction includes two Oberon Class submarines (in the United Kingdom), one oceanographic ship and extended refits for four River Class Destroyer Escorts, *Yarra*, *Parramatta*, *Derwent* and *Stuart*.

Personnel, training, entry, women's services, reserves

Personnel. The estimated strength of the Royal Australian Navy in terms of personnel borne for full-time duty for 1973-74 is 16,115. At 31 December 1973 the actual strength of personnel borne for full-time duty was 2,241 officers and 14,550 sailors, which included 152 officers and sailors of the Citizen Naval Forces, 6 officers and sailors of the Royal Australian Navy Emergency Reserve. These figures exclude the Navy component of the Papua New Guinea Defence Force which comprised 11 officers and 252 sailors at 31 December 1973.

Training. On entry, General List officers are trained at the Royal Australian Naval College, H.M.A.S. *Creswell* at Jervis Bay. The College was established to provide trained officers for the R.A.N. Junior entry to the College is at the age of fifteen to seventeen years and senior entry at a maximum age of twenty years. In November 1973 there were 114 cadet midshipmen under training. On completion of initial training, officers go to the Fleet for sea training, followed by advanced training either ashore in Australia, at universities or technical colleges, or at Royal Navy training establishments in the United Kingdom.

H.M.A.S. *Cerberus* at Westernport, Victoria, is the main training establishment for adult sailors in the permanent naval forces, while several advanced training schools are established in New South Wales. The period of initial engagement for sailors varies from six years for tradesmen to nine or twelve years, and on completion sailors may re-engage for shorter periods up to the age of fifty-five.

H.M.A.S. *Nirimba* at Quakers Hill, New South Wales, is the naval school for apprentices. It provides secondary education, as well as technical training in trades, to boys aged fifteen to seventeen and a half years. The school was established in 1956 to meet the R.A.N.'s increased demand for highly skilled tradesmen. In December 1973 there were 472 naval artificer apprentices under training.

H.M.A.S. *Leeuwin* at Fremantle, Western Australia, is the junior recruit training establishment. Entrants must be aged between fifteen and a half and sixteen and a half years. Training lasts one year and instruction is mainly academic, the remaining time being devoted to basic naval and disciplinary training. On completion of the course sailors are posted to technical and specialist courses before proceeding to sea. In December 1973 there were 698 junior recruits undergoing training.

On completion of initial training sailors join the Fleet for sea training before returning to the various training schools at H.M.A.S. *Cerberus*, H.M.A.S. *Penguin* and H.M.A.S. *Watson* at Sydney and R.A.N. Air Station at Nowra, New South Wales. Sailors who are selected for the Submarine service receive initial submarine training in the United Kingdom and a number of technical courses for certain sailors are conducted in the United States of America.

Direct entry officers. To meet increasing requirements for officers, direct entries are accepted into the Royal Australian Navy. Short service commissions of seven years are granted on completion of training as seamen, supply or aircrew officers, to suitable applicants who have completed their secondary schooling and who are over seventeen years of age and under twenty-four years of age. Other direct entries may be approved outside these age limits from persons with appropriate qualifications and experience.

Opportunities exist for university undergraduates studying medicine, dentistry and engineering to enter the R.A.N., and on successful completion of their studies to commence short or full-time service in the Navy. Fully qualified doctors, dentists, engineers, instructors and legal officers may also enter the R.A.N. directly if they are of the appropriate age.

Women's Services. The present Women's Royal Australian Naval Service was inaugurated in January 1951. The numbers serving in shore establishments in December 1973 were 36 officers and 707 W.R.A.N.S. The Royal Australian Navy Nursing Service was reconstituted in November 1964, and its strength in December 1973 was 23 officers.

Emergency Reserve. In November 1964 approval was given to form the Royal Australian Naval Emergency Reserve to provide a readily available source of trained manpower which may be called on for continuous full-time service. The authorised establishment of this force is 2,000 officers and

sailors. At 30 December 1973 the strength of the reserve available for mobilisation was 67 officers and 823 sailors, which excluded 2 officers and 4 sailors serving full-time. Members are required to complete thirteen days training annually and are paid an annual bounty.

Citizen Naval Forces. The Citizen Naval Forces consist of the R.A.N. Emergency List, Royal Australian Fleet Reserve, Royal Australian Naval Reserve and Women's Royal Australian Naval Service Reserve. The authorised establishment of the combined forces is 10,000. At 30 December 1973 there were 1,136 officers and 4,313 sailors in the Citizen Naval Forces. These figures excluded 98 officers and 54 sailors serving full-time. The R.A.N.R. is the training reserve of the Citizen Naval Forces. Members carry out weekly training and thirteen days continuous training annually; sailors engage for periods of three years. Other reserves do not normally carry out part-time training, but members may volunteer for periods of annual training and for periods of full-time service with the R.A.N.

Military Defence

A detailed account of the Australian defence forces prior to federation appears in Year Book No. 2, pages 1075–81. See also Year Book No. 12, page 999.

Commonwealth Systems

Under the terms of the Commonwealth of Australia Constitution Act the Commonwealth took over control of defence matters in March 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in a number of phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogenous Army in 1902 up to the re-establishment of the Military Board and the organisation of Commands after the 1939–45 War—see Year Book No. 46 and earlier issues.

National Service Training was introduced in 1951 and suspended in 1959–60. It was re-introduced in June 1965 and suspended in December 1972.

Organisation

The Department of Defence (Army Office) is responsible for the policy and control of the Australian Army. The Military Board consists of the Minister for Defence (President), the Chief of the General Staff, the Vice Chief of the General Staff, the Chief of Operations, the Chief of Personnel, the Chief of Matériel, the Citizen Military Forces Member, and the Special Deputy to the Permanent Head, Department of Defence (Army Office). After the 1939–45 War, Command Headquarters, on a geographic basis, were established to implement Military Board policy and to command and administer those units placed under their command.

On 1 November 1973, the geographic Commands were abolished and the Army was reorganised on a functional basis. The new Commands established are:

Field Force Command
Logistic Command, and
Training Command

Field Force Command commands all field force units of the Australian Army, both Regular and Citizen Military Forces.

Logistic Command commands all logistic elements of the Army.

Training Command is responsible for all individual training and commands all Army training units and schools with the exception of the Royal Military College, Duntroon.

To provide administration support for the three functional Commands there are military district organisations. These are:

1st Military District—the State of Queensland.

2nd Military District—the State of New South Wales, less those parts included in 3rd and 4th Military Districts.

3rd Military District—the State of Victoria and part of southern New South Wales.

4th Military District—the State of South Australia, plus a portion of south-western New South Wales.

5th Military District—the State of Western Australia.

6th Military District—the State of Tasmania.

7th Military District—the Northern Territory.

The Military District headquarters also handle those matters in which both Australian and State Governments are involved.

Personnel, training, Women's Services, cadets

Personnel. The effective strength at 26 December 1973 was: Australian Regular Army, 31,775 (including 30,513 males and 1,262 females (Women's Services)); Citizen Military Forces, 20,487.

Staff College. Until 1938 the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938 an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945 the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946 the Staff School (Australia) was established at Seymour, Victoria, and redesignated the Staff College in conformity with other Commonwealth training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff, Victoria, where it is at present situated. The course is held annually and is of twelve months duration. The normal intake is seventy students. The course is designed to train selected officers for appointments in all branches of the staff in peace and war and to prepare them to assume, after experience, command and higher staff appointments.

Students from Canada, India, Indonesia, Malaysia, New Zealand, Pakistan, the Philippines, Thailand, United Kingdom and United States of America are included in the course. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force, and the Australian Public Service.

In order to ensure common standards in tactical doctrine, and staff and command training throughout the Commonwealth of Nations, liaison is maintained with other Staff Colleges, and to this end there is also a reciprocal exchange of instructors between the United Kingdom, the United States of America, and Australia. An instructor is also provided by New Zealand.

Royal Military College. The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations. The course is four years of military and academic studies. The first three years are primarily academic and the fourth year military. Following affiliation with the University of New South Wales a Faculty of Military Studies was introduced in 1968. Cadets who meet the requirements for admission to the Faculty may take a course, leading to the award of a degree in Military Studies by the University of New South Wales in one of the following: Arts, Applied Science or Engineering. Cadets not admitted to the Faculty take a diploma course appropriate to their educational background. On graduation, cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces. In 1967 one Thai cadet commenced training at the College; another Thai cadet commenced in 1970, a third in 1972 and a fourth in 1973.

Officer Cadet School. The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Army. Serving members of the Regular Army, the Citizen Military Forces and civilians between the ages of eighteen and a half and twenty-two and a half are eligible for entrance. A special entry provides for candidates up to twenty-four and a half years. The course lasts for forty-four weeks, and on graduation cadets are appointed second lieutenants in the Australian Regular Army. Graduates normally proceed to further training at the Army School of the Arm and Service to which they have been allotted before being posted to regimental duties. The Officer Cadet School also trains officers on occasions for Kenya, Malaysia, New Zealand, Thailand, the Philippines, Brunei and the Papua New Guinea Defence Force.

Women's Royal Australian Army Corps School. The W.R.A.A.C. School, established in 1952 at Mildura, Victoria, moved to Mosman, New South Wales, in 1958. It has three wings, one whose primary task is the training of officer cadets for the W.R.A.A.C., one for the training of non-commissioned officers at all levels and for other special courses, and one which is a basic training wing. The officer cadets are selected from eligible applicants, who may be serving members between nineteen and a half and thirty-two years of age, or civilians between nineteen and a half and thirty years of age. The course is of twenty-seven weeks duration and on graduation cadets are appointed lieutenants in the Royal Australian Army Nursing Corps or the Womens Royal Australian Army Corps.

Army Apprentices School. The Army Apprentices School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army and to form a background for an Army career with prospects of promotion for the graduates. The

course is open to youths between the ages of fifteen and seventeen and provides training in a number of highly skilled trades. Most apprentices attend two years of intensive theoretical and practical work at the Apprentices School which is followed by two years on-the-job training in an appropriate Army workshop or technical unit under the supervision of an Apprentice Master. The exceptions to this are the Radio Tradesmen who train for three years at the Apprentices School before one year on-the-job training. Before leaving the Apprentices School all apprentices take the Victorian Apprenticeship Commission final grade public examination, which ensures that they will be accepted as qualified tradesmen in civilian life when they eventually leave the Army. In addition to trade and military training, the Apprentices School provides the facility for apprentices to attain an educational standard of Victorian Technical Leaving.

Other Schools. Army schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion and to produce trained instructors. Courses at Army schools are conducted for members of both the Regular and the Citizen Military Forces. The following Army schools have been established: Jungle Training Centre, Armoured Centre, School of Artillery, School of Military Engineering, Transportation Centre, School of Military Survey, School of Signals, Infantry Centre, Army Aviation Centre, Army Intelligence Centre, Royal Australian Transport Corps Centre, Royal Australian Army Medical Corps School of Army Health, Royal Australian Army Ordnance Corps Centre, Royal Australian Electrical and Mechanical Engineers Training Centre, Royal Australian Army Provost School, School of Music, Air Support Unit (Army Component), and Air Movement Training and Development Unit (Army Component).

Women's Services. In July 1950 approval was given for the enlistment of women into the Australian Regular Army on a limited scale. Enlistment commenced into the Royal Australian Army Nursing Service in November 1950 and into the Australian Womens Army Corps early in 1951. In February 1951 the Royal Australian Army Nursing Service became a Corps and was designated the Royal Australian Army Nursing Corps (R.A.A.N.C.). During June 1951 the Australian Womens Army Corps was redesignated the Womens Royal Australian Army Corps (W.R.A.A.C.). The Womens Services in the Australian Regular Army now comprise these two Corps. Womens Services are incorporated in the Citizen Military Forces, and one company of the Womens Royal Australian Army Corps is located in each Military District excluding the Northern Territory. Companies of the Royal Australian Nursing Corps are also located in each Military District excluding the Northern Territory Military District.

Australian Cadet Corps. The Australian Cadet Corps is a voluntary organisation. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. The Australian Cadet Corps, does not, however, form part of the Australian Military Forces. School Cadet units are raised at educational establishments throughout Australia except in the Northern Territory. The minimum age for enrolment is the year in which the applicant reaches the age of fourteen years, and cadets, who in most schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers of cadets, cadet under-officers, warrant and non-commissioned officers from within school units according to an authorised establishment scale. School Cadet units may be, and in many cases are, affiliated with Citizen Military Force units. The establishment of the Corps is 46,000 all ranks, and at 30 June 1973 comprised 327 School Cadet units with a posted strength of 37,622 all ranks.

Air Defence

There are two elements in air defence: static air defence and counter air operations by strike aircraft.

Static air defence is provided by manned interceptor fighter aircraft, at times augmented by surface-to-air missile systems and gun defences, all operating under the direction of a control organisation. Such static systems are limited in their defensive coverage by the radius of action of the fighter aircraft and/or the effective operating range of the controlling radar.

Complementary to the static air defence system and capable of much wider ranging activities are the counter air strike forces. The aim of these forces is to destroy the enemy's offensive air capabilities at their source.

Higher organisation

The Air Board is responsible to the Minister for Defence for the control, organisation, and administration of the Royal Australian Air Force and is constituted as follows: Chief of the Air Staff, Air Member for Personnel, Air Member for Supply and Equipment, Air Member for Technical Services, and Special Deputy (Air Office) Department of Defence.

The Air Board administers and controls R.A.A.F. units in Australia and its Territories through two commands, Operational Command and Support Command. The guiding principles of the command organisation within Australia are to decentralise day-to-day operating activities as far as possible and to streamline the force and make it as efficient as possible. Operational units overseas, working within the broad directives issued by the Air Board, comprise the R.A.A.F. components of the ANZUK Force located at Butterworth in Malaysia and in the Republic of Singapore.

The members of the Air Board and their staffs are located at the Department of Defence (Air Office) in Canberra. An R.A.A.F. representative is located in London, and air attaches are located in Djakarta, Saigon, Paris, and Washington. Operational Command is responsible for the command of operational units and the conduct of their operations within Australia and its territories. Support Command is responsible for the recruitment and training of personnel, and the supply and maintenance of service equipment.

Development of the Royal Australian Air Force

For a short note about the development of the Royal Australian Air Force, see Year Book No. 58, page 93.

Organisation of units

Bases. Each command is established with the units necessary to carry out its allotted function. There is no fixed rule regarding the number and types of units within each command, as this depends upon the nature of its present and future responsibilities. Where possible, units having similar functions or requiring similar facilities are located together, and the geographical locations are known as bases.

Formations—comprising a headquarters unit to control the activities of a number of units at one location; each formation has a base squadron which provides common services to all units at the location.

Flying squadrons—strike reconnaissance, air defence, ground attack, medium and short range transport, helicopter, and maritime reconnaissance squadrons which undertake the operational flying and in conjunction with operational conversion units, the operational flying training commitments of the R.A.A.F.

Operational conversion units—specialising in operational conversion training of aircrew for the air defence and ground attack squadrons.

Aircraft depots—specialising in major overhaul, etc., of aircraft and equipment.

Stores depots—centrally located depots to which stores and equipment ordered by the R.A.A.F. are delivered for distribution to units.

Airfield construction squadron—specialising in airfield construction tasks in support of the R.A.A.F. operational component within Australia and the Territories.

Telecommunications units—responsible for the communications services of the R.A.A.F.

R.A.A.F. hospitals—hospitals in Australia and at Butterworth providing medical services for the R.A.A.F.

Flying and ground schools and units—schools and units specialising in the aircrew and ground staff training required by the R.A.A.F.

R.A.A.F. Diploma Cadet Squadron and R.A.A.F. Academy—training units, to diploma and university degree level respectively for officer cadet entrants to the R.A.A.F.

R.A.A.F. Staff College—trains specially selected R.A.A.F. officers for higher staff and command posts.

Aircraft

The R.A.A.F.'s strike reconnaissance force is currently equipped with Canberra and F111C aircraft. The air defence and ground attack squadrons are equipped with the Mirage III-O. Transport aircraft currently in use are Hercules C130A and E, Caribou, Dakota, Mystere 20, HS748, and BAC1-11. Three squadrons operate Iroquois and Chinook helicopters and the two maritime squadrons operate Neptune SP2H and Orion P3-B aircraft. Aircraft used for basic training are the Winjeel, Macchi and HS748.

Personnel, Reserve, Women's Services

At 30 December 1973, the authorised Permanent Air Force establishment was 23,171 and the Citizen Air Force 600; the enlisted strength was Permanent Air Force 21,520 and Citizen Air Force 421, while the strength of the General Reserve was 7,657. The Permanent Air Force figures include the Women's Royal Australian Air Force, which has an establishment of 979 and strength of 807 and the R.A.A.F. Nursing Service with an establishment of 113 and strength of 82.

Department of Supply

For information relating to the creation of the Department of Supply and its development up to 1959 see Year Book No. 51, page 1204, and earlier issues. On 18 December 1959 the Department assumed responsibility for the operation and management of space tracking stations in Australia on behalf of the United States of America's National Aeronautics and Space Administration (NASA). On 29 March 1962 Australia became a foundation member of the European Launcher Development Organisation (ELDO), and the Department accepted responsibility for the test firing of the launching rocket for that Organisation's experimental satellite, using the facilities of the Woomera Rocket Range. The last of these ten test firings at Woomera was on 12 June 1970.

On 1 May 1968 the Department took over the Administration of the Antarctic Division from the then Department of External Affairs. In December 1972, this responsibility was transferred to the Department of Science.

Functions of Department

The functions of the Department of Supply include the following:

Defence research and development, including the operation of the Joint United Kingdom-Australia Weapons Research Project, and Australian research and development.

Planning, establishment, operation and management of facilities producing aircraft, guided missiles, small arms, ammunition, explosives, marine engines, clothing, telecommunications equipment and other defence goods.

Printing for the Defence group of departments.

Arrangement of contracts for purchasing of supplies and services required by the Armed Forces and certain other Government organisations.

Acquisition, maintenance, and disposal of strategic materials.

Investigation and development of Australian sources of supply in connection with defence.

Disposal of surplus or obsolescent Australian Government goods on behalf of all departments.

Provision of Australian Government transport facilities outside the Australian Capital Territory and the Northern Territory.

Provision and control of stores required for or in connection with matters administered by the Department of Supply, and general storage for other departments as required.

Arrangements for ascertaining costs, and the control and limitation of profits in connection with the production of munitions and other defence goods.

Operation and management of space tracking stations and certain other facilities on behalf of the Government of the United States of America.

The Minister for Supply administers the *Supply and Development Act 1939-1966*, except insofar as it concerns the building (see also Chapter 12, Transport and Communications), repair, and maintenance of merchant ships and the building, extension, alteration, repair, and maintenance of shipyards, drydocking and repair facilities for merchant ships.

For the performance of the above functions the Department is organised into five Divisions, namely:

Research and Development; Munitions Supply; Aircraft, Guided Weapons and Electronics Supply; Planning and Procurement; and Finance and Management Services.

Research and Development

The Research and Development Division is responsible for scientific research and development in relation to war material; the operation of the Joint United Kingdom-Australia Weapons Research Project; and support of space research programs for the United States of America's National Aeronautics and Space Administration (NASA). The headquarters is situated in Canberra, and the following establishments are included in the Division: (a) Weapons Research Establishment,

Salisbury, South Australia; (b) Defence Standards Laboratories, Maribyrnong, Victoria; Woodville North, South Australia; Alexandria, New South Wales; Joint Tropical Research Unit (J.T.R.U.) at Innisfail, North Queensland in conjunction with the United Kingdom Ministry of Defence; (c) Aeronautical Research Laboratories, Fishermen's Bend, Victoria; and (d) Central Studies Establishment, Canberra, Australian Capital Territory.

Weapons Research Establishment. The Establishment has three scientific wings, namely Trials Wing, Applied Physics Wing and Weapons Research and Development Wing. The Trials Wing is concerned with the operation, development and instrumentation of the Woomera Range, and the planning, execution, and assessment of trials to meet the requirements of projects approved under the United Kingdom-Australia Joint Project arrangements. The arrangements have been extended for two years from 1 July 1974. The Applied Physics Wing conducts scientific research of significance to the Defence requirements of Australia in the broad fields of systems analysis, electronics, optics, radio propagation, radar, lasers, infra-red, visual surveillance. The Weapons Research and Development Wing is engaged similarly in aeroballistics, weapon systems, rocket propulsion and marine physics for the Defence group of departments.

In addition, an Engineering Wing provides engineering design, development and maintenance facilities, and certain technical services for the scientific wings (including the Joint Project Trials Wing). Engineering support is also provided for other Research and Development Division Laboratories. The Engineering Wing also undertakes tasks for other Supply organisations and the Australian Defence Services.

Defence Standards Laboratories. This Establishment (at Maribyrnong, Victoria) provides a scientific service to the Defence Services, Department of Supply factories and other authorities engaged in support to Defence, generally within the fields of chemistry, physics, metallurgy, engineering, explosives and ammunition, and to a limited extent, in the fields of biochemistry and physiology. It also undertakes scientific research appropriate to its responsibilities and of significance to the defence requirements of Australia. It is the principal Standards Laboratories of the Defence group of Departments and provides calibration facilities for the higher grades of standards. The Australian National Standards Commission has appointed D.S.L. as a verifying authority under the Weights and Measures (National Standards) Act.

Branches are located at Woodville North, South Australia and Alexandria, New South Wales.

The Joint Tropical Research Unit (J.T.R.U.) at Innisfail provides facilities for studying the behaviour and degradation of a wide range of materials and stores in hot-wet and hot-dry tropical environments.

Aeronautical Research Laboratories. The work of this establishment is broadly related to the aeronautical aspects of materials science, mechanical engineering, aircraft structures, aerodynamics and system studies. It undertakes research and development on specific defence projects, provides advice and conducts investigations for the Services, Government departments and industries engaged in defence work. Scientific research related to these responsibilities and of significance to the defence requirements of Australia is also undertaken.

Central Studies Establishment. This establishment assists the Defence group of departments in the application of operational research and systems analysis techniques to the study of military problems.

United States of America's project. Agreements have been signed by the Governments of Australia and the United States of America to co-operate in the establishment and operation in Australia of space vehicle tracking stations. The agencies for the Australian and the American Governments are the Department of Supply and the National Aeronautics and Space Administration (NASA) respectively.

As part of the world-wide network supporting NASA's space program the stations are designed to track spacecraft in their orbits around the earth or on their journey into space, to receive telemetered data from the spacecraft and to issue radio commands controlling the spacecraft's manoeuvres. The Department of Supply is responsible for managing, staffing and operating the stations on behalf of NASA. The stations which are now in operation are at Carnarvon in Western Australia (this station will close by the end of 1974 following a review by the United States of its space tracking requirements) and at Orroral Valley, Honeysuckle Creek and Tidbinbilla in the Australian Capital Territory.

An extensive communications system links the tracking stations with the control centres in the United States of America. At all stations the responsibility is vested in a station director who is a senior officer of the Department of Supply.

Under the Australian Government's policy of using the resources of private industry wherever possible, contracts for operation and maintenance services at the stations have been let as follows: Amalgamated Wireless (A'asia) Ltd (Carnarvon, Orroral Valley and Tidbinbilla), and Standard Telephones and Cables Pty Ltd (Honeysuckle Creek). NASA expenditure on operations in Australia for the period July 1972 to June 1973 was \$12.76 million.

The balloon-launching station at Mildura, Victoria, which the Department manages, will continue in operation until at least May 1975, although the agreement under which the United States Atomic Energy Commission used it terminated on 9 May 1974. There has been sufficient expression of interest from the Australian scientific community in using the station to suggest that it should be maintained for at least an interim period, during which its future can be further assessed. The station's prime purpose before 9 May was to monitor the level of radioactivity in the upper atmosphere using high-altitude balloons. Research experiments were flown on behalf of United States and Australian universities and research institutions.

Munitions Supply

The Department of Supply is responsible for the production of munitions required by the Armed Services. Production is carried out in Government factories, and a wide range of orders is also placed with private industry. The factories currently in operation and their main products or services are as follows:

Ammunition Factory, Footscray, Victoria (fuses, primers, cartridge cases and small arms ammunition); Clothing Factory, Victoria (uniforms and clothing); Defence Printing Establishment, Victoria (special defence printing requirements); Engine Works, Victoria (building and servicing of marine diesel engines); Albion Explosives Factory, Deer Park, Victoria (high explosives, propellants, chemicals); Explosives Factory, Maribyrnong, Victoria (propellants, explosives, chemicals, ammunition, rocket motors, paints, cements and allied products); Mulwala Explosives Factory, New South Wales (propellants, chemicals); Munitions Filling Factory, St Marys, New South Wales (filled ammunition and explosive munitions); Ordnance Factory, Bendigo, Victoria (heavy guns, mountings, large turbine gears); Ordnance Factory, Maribyrnong, Victoria (guns, projectiles, fire control equipment, rocket motor components); and Small Arms Factory, Lithgow, New South Wales (rifles, machine guns, mortar shells, small calibre shells and fuse components).

Aircraft, guided weapons and electronics supply

Aircraft. Production both in Government factories and in industry of military types of aircraft and aero-engines and of other aircraft components required by the Services is administered by the Department of Supply through this Division. Planning of capacity and the negotiation of contractual arrangements concerning aircraft modification, repair and overhaul, and for the supply of spare parts and airborne equipment for the Services, are also functions of the Division.

The following factories are operated by the Division: The Government Aircraft Factory at Fishermen's Bend together with its Final Assembly Workshops and Test Airfield at Avalon, Victoria, and the Aircraft Engineering Workshop at Pooraka, South Australia.

The Government Aircraft Factories have designed and developed a twin turbo-propellor utility aircraft known as Nomad. The first prototype flew in July 1971, and in May 1972 the first production phase of the aircraft was authorised. The first production run will include aircraft for the Australian Army and for sale to other users. GAF also designed and is producing the Jindivik radio-controlled target aircraft which has been or is being supplied to Britain, Sweden and America as well as to the Weapons Research Establishment and the R.A.N. The Turana target aircraft in production for the Royal Australian Navy is of GAF design. GAF produces the missile of the Australian-designed Ikara anti-submarine weapon system which is in production for the Royal Navy, the Royal Australian Navy and the Brazilian Navy.

Apart from the Government Aircraft Factory, the Commonwealth Aircraft Corporation Pty Ltd is the only major aircraft manufacturer in Victoria. The Corporation was the prime contractor for the Australian production for the R.A.A.F. and R.A.N. of the Italian Macchi jet trainer and for the production of the British Viper engine that powers this aircraft. The CAC is the major Australian contractor for the Bell light observation helicopter which is being produced for the Australian Army. Hawker de Havilland Australia Pty Ltd at Bankstown and Lidcombe, New South Wales was the major sub-contractor for the Macchi. Macchi trainer production for R.A.A.F. and R.A.N. was completed in 1972.

Guided weapons. The production of the Ikara anti-submarine missile is continuing at the Government Aircraft Factory at Fishermen's Bend. Production of the complete Ikara system, covering

broadly the missile, motor, propellants, guidance equipment, launcher, and magazine handling equipment, is a combined effort by departmental establishments and industry, directed and co-ordinated by the Department. Ikara has been fitted to 9 R.A.N. ships and variants have also been purchased by the British and Brazilian Navies. Other overseas sales are being actively pursued. Turana, a development from the Ikara concept which can use the same shipboard launchers, is a small jet engine-powered, pilotless target aircraft being produced by the Government Aircraft Factory for the R.A.N. At St Marys, New South Wales, a Guided Weapons and Electronics Support Facility has been established to repair and maintain guided missiles for the Armed Services. The facility also provides support to the Services in calibration, aerial testing and modelling, in the provision of environmental test facilities, and in the maintenance and calibration of avionics equipment.

Naval Systems. A special group handles the co-ordination within the Department of the procurement and industrial development aspects of major R.A.N. equipment purchases. The R.A.N.'s new destroyer project, submarine and ship sonar systems, are current activities of this group.

Electronics. The Department is responsible for the technical aspects of supply of telecommunications and electronics equipment for the Defence Group. Production is also arranged for other Australian Government authorities and foreign aid programs. There has been recently a growing involvement in the negotiation for Australian industry participation in Defence purchases overseas. Projects handled by the Department include multi-channel UHF radio relay equipment and a range of military radio pack-sets for the Army, a computer-based message switching system for the Navy and major fixed telecommunications installations for the Air Force. Technology development in electronics is separately sustained from a production development appropriation within the Department of Supply vote.

Barra. The development of this long-range underwater submarine-detection system is being co-ordinated by the Department in several Australian electronic and aircraft companies. The project is one of the largest defence development projects undertaken in Australia. The United Kingdom, as its contribution to the joint program, is developing the airborne data processing equipment. The R.A.N. and R.A.A.F. are considering the fitting of the system to their aircraft. There is potential for sale to friendly countries.

Planning and procurement

Contract Board. The Board, constituted under the Supply and Development Regulation arranges for the purchase of supplies and services for the Australian Naval, Military and Air Forces and for Department of Supply factories and establishments. Upon request, the Board also arranges contracts on behalf of other Australian Government departments and authorities. It also arranges disposal—by means of public tender, auction or otherwise—of stores no longer required for Australian Government purposes. The Board comprises representatives of the three Services and of the Department of Supply. In each State there is a District Contract Board similarly constituted, which is authorised to exercise the functions of the Contract Board within certain financial limits.

Purchases by the Contract Board and District Contract Boards in all States in 1972–73 totalled \$188 million. Total realisation from disposals in 1972–73 was \$13 million.

Planning. The Production Planning Branch:

- studies manufacturing capacity available for the Services' requirements in peace and war;
- plans for and assists in the development of additional production capacity and plans the organisation of industrial resources for defence production in war;
- provides and administers reserve stocks of materials and reserve pools of plant, equipment and other requirements needed for rapid expansion in the event of war;
- receives and allocates to the appropriate departmental divisions all orders and procurement demands placed on the Department;
- monitors all aspects of progress in satisfying them and keeps client departments informed of progress;
- provides advisory services in the field of materials supply and utilisation to Government factories and contractors engaged in the production of munitions requirements;
- administers the national stockpile of strategic materials.
- arranges and administers the Department's interface with industry.

Stores and transport. The Stores and Transport Branch functions as the central storage and transport authority for most Australian Government departments. It provides car transport and goods transport by road in all States but not for the Australian Capital Territory or Northern Territory. It is the authority for the arrangement of furniture removals at departmental expense in all States,

but not in the Northern Territory. It has agents in Darwin. It also operates a shipping and customs section and the England–Australia bulk air freight scheme for Australian Government departments.

On 30 June 1973 the branch had under its control land, building and works, vehicles, plant and equipment, valued at \$27,609,000; 4,992 motor vehicles and 29.3 hectares of storage space as well as storage facilities for large quantities of chemicals, bulk liquids and explosives.

Sales and Aid. The Sales and Aid Branch promotes sales of Departmental products; administers arrangements for the supply of material provided as Defence Aid by the Australian Government; acts as project manager for some Defence aid projects; provides technical advice and procurement services on Civil Aid Programs; administers Departmental patents and licensing arrangements; co-ordinates and monitors Australian industry participation programs for Australian defence purchases from overseas; administers and co-ordinates the development of co-operation between Australia and New Zealand in the defence supply field.

Finance and Management Services

Finance. The total expenditure on Department of Supply activities in 1972–73 was \$265,557,000. This was made up of \$123,137,000 from Parliamentary Appropriations and \$142,420,000 from Trust Fund Accounts which included \$27,957,000 for Stores and Transport, \$95,291,000 for Government Munitions and Aircraft Factories, \$18,132,000 for projects for other governments and \$1,040,000 for cafeterias.

Management Services. The Technical Services Branch of the Department provides an operating, advisory and consultative service to the Department for industrial engineering, office methods, management operations research, archives and registry practice, instrumentation, electrical and communications engineering services, materials handling, defence standardisation, stores cataloguing, library services and safety.

The Automatic Data Processing Branch provides services to the Department by: assisting in the specification of data-processing systems; designing and implementing computer based systems; co-ordinating computer equipment requirements; and providing ADP training programs.

Personnel. At 31 December 1973 the Department employed 19,779 personnel as follows: administration 2,442; cadets and trainees 229; laboratories 5,961; aircraft production 2,099; munitions production 5,684; miscellaneous production 877; Stores and Transport Branch 2,460; and overseas staff 27.

CHAPTER 5

REPATRIATION

The Repatriation Commission, established under the *Repatriation Act* 1920–1973, consists of three full-time members. It is responsible for the administration of the Repatriation Act and associated legislation, all matters of policy, and the general administration and overall supervision of the Repatriation Department. The Chairman of the Commission is also the Permanent Head of the Repatriation Department, which provides the administrative machinery through which the Commission operates. The central office is in Canberra and there is a branch office, under the control of a Deputy Commissioner, in each State.

The principal functions of the Department are: the payment of war and service pensions and allowances to eligible ex-servicemen and ex-servicewomen and their dependants; the provision of medical treatment for ex-servicemen and ex-servicewomen for injuries and illnesses caused or aggravated by their service; the provision of medical treatment in certain circumstances for ex-servicemen and ex-servicewomen who are suffering from injuries and illnesses not caused or aggravated by service; the provision of medical treatment for widows and dependants of deceased ex-servicemen whose deaths are service-related; and a wide range of other benefits for eligible persons.

Benefits are provided in respect of service, not only in the 1914–18 and 1939–45 Wars, but also in the South African War 1899–1902, the Korea and Malaya operations, with the British Commonwealth Far East Strategic Reserve and the Special Overseas Forces serving in prescribed areas, and in the Regular Forces in certain circumstances.

For information on war service land settlement *see* Chapter 22, Rural Industry; for statistics relating to defence service homes *see* Chapter 9, Housing and Building.

For detailed information about repatriation pensions, allowances, benefits and services, reference should be made to the annual reports of the Repatriation Commission.

REPATRIATION: TOTAL EXPENDITURE^(a) (\$'000)

Class	1968–69	1969–70	1970–71	1971–72	1972–73
Pensions, allowances and other benefits	221,678	228,309	240,539	266,107	303,183
Medical treatment	62,743	68,395	74,627	87,328	97,297
Administration	13,196	14,972	16,700	18,913	20,791
Works, rent and maintenance	4,929	5,423	7,981	5,301	6,870
Total expenditure	302,546	317,098	339,847	377,649	428,141

^(a) Includes expenditure by Departments other than Repatriation as follows: 1968–69, \$4,841,789; 1969–70, \$5,298,982; 1970–71, \$5,852,357; 1971–72, \$4,982,764; 1972–73, \$6,645,558.

War pensions

The first provision for the payment of war pensions to ex-servicemen and their dependants was made by the Commonwealth Parliament in the *War Pensions Act* 1914. This Act was repealed in 1920 by the *Australian Soldiers' Repatriation Act* 1920 (amended from 31 December 1950 to the Repatriation Act). Amendments to the Act in 1943 considerably widened the eligibility provisions, to the benefit mainly of members of the Citizen Military Forces who had not served outside Australia during the 1939–45 War.

For a brief description of eligibility for war pensions; the conditions for payment of the various rates and allowances; and of operation of the Appeals Tribunals, *see* pages 91–93 of Year Book 55, Chapter 5, Repatriation.

Pensions and allowances

War pensions and associated allowances are not subject to a means test, except in the case of dependants other than wives, widows, widowed mothers and children. Pensions and allowances payable and the main weekly rates from 28 March 1974 are as follows.

Pensions for service-related incapacity—Special rate (totally and permanently incapacitated (T. & P.I.) or blinded), \$60.10; an equivalent rate is payable for temporary total incapacity or to an ex-serviceman pensioned for pulmonary tuberculosis who is, as a result, unfit for employment; *Intermediate Rate*. (Capable of part-time work only), \$41.05; ex-servicemen pensioned for pulmonary tuberculosis and able only to work part-time receive the same rate; *General Rate* (capable of full-time employment), 100 per cent basic rate, \$22. *Dependants—* Pensions are also payable to the dependants of incapacitated ex-servicemen: Wife, \$4.05; eligible children, \$1.38; (Maximum rates).

Pensions in respect of death—War and defence widows (where death was related to war or defence service or, at the date of death, the ex-serviceman was receiving a war pension at the special rate, or its equivalent in respect of pulmonary tuberculosis, or as a double amputee) \$26.00; eligible widows may also receive a domestic allowance, \$9.50; *children* (under 16 years of age) or *student children* over 16 years of age undergoing full-time education, \$9.25; double orphans (both parents deceased), \$18.50.

*Allowances—*various allowances are provided to supplement war pensions and these vary according to the type and severity of disablement and the special needs of the pensioner. The main allowances and maximum weekly rates payable are: *Attendants allowance* (for the severely disabled), maximum \$22.00; *Clothing allowances* (where clothing is subject to damage from surgical aids, etc.), from 55 cents to \$1.05; *Domestic allowance* (payable to eligible war and defence widows), \$9.50. Other allowances payable include: *Sustenance allowance*; *Fares, subsistence and attendance allowance*; *Recreation transport allowance*; *Funeral benefits, etc.*

Summary of war pensions

The following tables provide a summary of war pensions (excluding miscellaneous war pensions) for the 1914–18 War, the 1939–45 War (including war pensions payable under the *Interim Forces Benefits Act 1947–1966*), the Korea and Malaya operations, the Far East Strategic Reserve, and the Special Overseas Service. Statistics relating to miscellaneous war pensions are shown later in this section.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1972-73

		1914–18 War	1939–45 War(a)	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total
New claims granted	No.	325	14,532	556	143	2,293	17,849
Restorations	No.	20	2,106	97	5	26	2,254
Claims disallowed(b)	No.	306	2,855	92	33	567	3,853
Pensions cancelled (gross)	No.	99	14,577	599	68	276	15,619
Deaths of pensioners	No.	5,063	6,534	45	6	26	11,674
Pensions in force at 30 June 1973	No.	68,103	449,306	11,821	2,081	14,357	545,668
Annual pension liability at 30 June 1973	\$'000	59,694	163,619	2,039	274	1,726	227,351
Amount paid in pensions during the year 1972–73	\$'000	n.a.	n.a.	n.a.	n.a.	n.a.	224,489

(a) Includes interim forces. (b) Number of ex-servicemen who had their claims for all their disabilities disallowed.

NOTE. Increases in the number of new claims granted and restorations during 1972–73 are mainly due to an amendment to the legislation which provided for pensions for student children over 16 years of age. At 30 June 1973 there were 10,124 student children over 16 years of age receiving war pensions.

WAR PENSIONS: SUMMARY, AUSTRALIA

	1968-69	1969-70	1970-71	1971-72	1972-73(a)
New claims granted . . .	17,570	17,129	16,437	13,041	17,849
Restorations . . .	429	317	569	240	2,254
<i>Total additions</i> . . .	<i>17,999</i>	<i>17,446</i>	<i>17,006</i>	<i>13,281</i>	<i>20,103</i>
Pensions cancelled (gross) . . .	22,285	21,222	20,158	17,826	15,619
Deaths of pensioners . . .	11,247	11,785	11,990	12,124	11,674
<i>Total reductions</i> . . .	<i>33,532</i>	<i>33,007</i>	<i>32,148</i>	<i>29,950</i>	<i>27,293</i>

(a) See NOTE to table on page 112.

Classes of war pensions

The following tables provide an analysis of the total number of new claims granted, pensions in force, and class of pension for 1972-73.

WAR PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1972-73(a)

Class	1914-18 War	1939-45 War(b)	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total
Ex-servicemen	120	2,386	74	24	492	3,096
Wives and widows of ex-servicemen	182	2,943	93	29	593	3,840
Children	22	9,121	384	90	1,202	10,819
Other dependants	1	82	5	..	6	94
Total	325	14,532	556	143	2,293	17,849

(a) See NOTE to table page 112. (b) Includes interim forces.

WAR PENSIONS IN FORCE: AUSTRALIA, 30 JUNE 1973

Class	1914-18 War	1939-45 War(a)	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total(b)
Ex-servicemen	20,131	181,910	3,437	579	5,299	211,356
Wives	25,440	160,621	2,762	478	3,638	192,939
Children	225	70,933	5,229	946	4,990	82,323
War widows	22,110	27,869	166	32	122	50,299
Children of deceased ex-servicemen	26	2,950	117	36	234	3,363
Orphans	8	127	6	..	1	142
Parents	25	4,258	95	9	71	4,459
Others	138	638	9	1	1	787
Total	68,103	449,306	11,821	2,081	14,357	545,668

(a) Includes interim forces. (b) Includes 10,124 student children over 16 years of age.

**WAR PENSIONS FOR INCAPACITATED EX-SERVICEMEN IN FORCE: BY CLASS OF PENSION
AUSTRALIA, 30 JUNE 1973**

<i>Class</i>	<i>1914-18 War</i>	<i>1939-45 War(a)</i>	<i>Korea and Malaya operations</i>	<i>Far East Strategic Reserve</i>	<i>Special Overseas Service</i>	<i>Total</i>
Special rate (T. & P.I.) or equivalent	5,912	14,348	120	7	37	20,424
Intermediate rate	149	1,657	21	..	..	1,827
General rate—from 10 per cent to 100 per cent assessed disability(b)	14,070	165,905	3,296	572	5,262	189,105
Total	20,131	181,910	3,437	579	5,299	211,356

(a) Includes interim forces. (b) Excludes 79 ex-servicemen who also receive benefits under items 1-6 of the Fifth Schedule and are included above under Special rate (T. & P.I.) or equivalent.

Number of war pensions and annual liability, States, etc.

The following table shows the number of pensions in force and annual liability at 30 June 1973, according to place of payment.

**WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY
30 JUNE 1973**

<i>Place of payment</i>	<i>Number of war pensions in force at 30 June 1973(a)</i>				<i>Annual pension liability at 30 June(b) (\$'000)</i>
	<i>Incapacitated ex-servicemen</i>	<i>Dependants of incapacitated ex-servicemen</i>	<i>Dependants of deceased ex-servicemen</i>	<i>Total</i>	
New South Wales(c)	76,141	96,442	21,590	194,173	82,816
Victoria	55,479	73,199	16,560	145,238	61,554
Queensland	33,415	45,301	8,119	86,835	36,874
South Australia(d)	19,423	25,345	5,048	49,816	18,645
Western Australia	17,452	22,471	4,141	44,064	15,748
Tasmania	8,498	11,860	2,040	22,398	9,930
Overseas	948	1,425	771	3,144	1,786
Total	211,356	276,043	58,269	545,668	227,351

(a) Includes interim forces 1939-45 War. (b) Includes domestic allowance payable to widows. (c) Includes Australian Capital Territory. (d) Includes Northern Territory.

Summary of war pensions, 1968-69 to 1972-73

The following table shows the number of pensions granted, claims rejected, pensions in force and the annual liability for pensions in each of the years ended 30 June 1969 to 1973.

WAR PENSIONS: SUMMARY, AUSTRALIA

<i>Year</i>	<i>Pensions granted</i>	<i>Number of war pensions in force at 30 June(a)—</i>				<i>Total</i>	<i>Annual pension liability at 30 June(c) (\$'000)</i>
		<i>Claims disallowed (b)</i>	<i>Incapacitated ex-servicemen</i>	<i>Dependants of incapacitated ex-servicemen</i>	<i>Dependants of deceased ex-servicemen</i>		
1968-69	17,570	4,950	221,343	319,899	59,071	600,313	171,818
1969-70	17,129	5,333	219,841	305,403	59,432	584,676	178,730
1970-71	16,437	5,110	218,355	291,828	59,356	569,539	185,974
1971-72	13,041	4,957	215,483	278,392	58,949	552,824	196,897
1972-73	17,849	3,853	211,356	276,043	58,269	545,668	227,351

(a) Includes interim forces 1939-45 War. (b) The number of claimants who had the claims for all their disabilities disallowed. (c) Includes domestic allowance payable to widows.

The following table shows, for the years 1968-69 to 1972-73, the amounts paid in pensions and the places where they were paid.

WAR PENSIONS: AMOUNT PAID(a)
(\$'000)

Place of payment	1968-69(b)	1969-70	1970-71	1971-72	1972-73
New South Wales(c)	64,981	65,469	68,992	76,791	81,599
Victoria	51,566	51,214	52,546	57,357	60,739
Queensland	28,543	29,055	30,813	34,183	36,821
South Australia(d)	15,326	15,151	15,722	17,270	18,405
Western Australia	13,038	12,786	13,114	14,384	15,428
Tasmania	7,617	7,831	8,226	9,089	9,851
Overseas	1,414	1,580	1,595	1,573	1,646
Total	182,485	183,086	191,008	210,647	224,489

(a) Includes domestic allowances paid to widows. (b) Includes five 12-weekly payments. (c) Includes Australian Capital Territory. (d) Includes Northern Territory.

Miscellaneous war pensions

The Commission is also responsible for the payment of pensions and allowances to beneficiaries under the *Seamen's War Pensions and Allowances Act 1940-1973* and Cabinet decisions granting eligibility to persons who were attached to the armed forces during war-time.

The following table shows the number and class of pensions and the annual liability at 30 June 1973, and the table thereafter shows the amounts paid during the years 1968-69 to 1972-73 and the place of payment.

MISCELLANEOUS WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY, AUSTRALIA, 30 JUNE 1973

Class	Number of pensions in force at 30 June 1973				Annual pension liability at 30 June(b) (\$'000)
	Members(a)	Dependants of members	Dependants of deceased members	Total	
Act of grace	121	141	54	316	174
Seamen's war pension	80	82	60	222	120
New Guinea civilians	2	..	63	65	99
Total	203	223	177	603	393

(a) 'Member' in this context is a person in respect of whose war-time experience a pension is paid. (b) Includes domestic allowances payable to widows.

MISCELLANEOUS WAR PENSIONS(a):
(\$'000)

Place of payment	1968-69(b)	1969-70	1970-71	1971-72	1972-73
New South Wales(c)	174	176	179	214	216
Victoria	87	84	90	107	124
Queensland	46	47	50	62	72
South Australia(d)	30	31	32	36	46
Western Australia	23	25	26	29	34
Tasmania	4	4	4	5	5
Overseas	1	1	1	1	1
Total	365	368	382	454	498

(a) Includes domestic allowance payable to widows. (b) Includes five 12-weekly payments. (c) Includes Australian Capital Territory. (d) Includes Northern Territory.

Service pensions

The *Repatriation Act* 1920-1973 provides for a service pension to be paid (subject to a means test on income and property, where the person is neither blind nor at least 75 years of age), to the following persons:

- ex-servicemen who served in a theatre of war (or in a designated *Operational* or *Special Overseas Service* area) and have attained the age of sixty years or are permanently unemployable;
 - ex-servicemen who suffer from pulmonary tuberculosis, irrespective of the area of their service; and
 - ex-servicewomen who suffer from tuberculosis, or who served in a theatre of war, or served abroad or embarked for service abroad and have attained the age of fifty-five years, or are permanently unemployable.
- veterans of the South African War 1899-1902 who were members of a naval or military force or contingent raised in Australia for active service in that war.

Rates of pension

Maximum service pension rates and allowances are the same as those paid to Age and Invalid pensioners under the Social Services Act. The means test provisions relating to payments are similar.

For information on conditions relating to the various rates and allowances and the operation of the means test, see Chapter 13, Welfare Services.

From 28 March 1974, the maximum weekly rates are as follows:

Standard Rate, \$26.00, *Married Rate*, \$22.75; *Guardian's Allowance*, \$4 (\$6 if caring for a child under 6 years or an invalid child requiring full-time care); *Supplementary assistance*, \$4 (or \$2 payable to each of a married couple); *Additional pension for eligible children*, \$5 for each child.

An ex-serviceman or ex-servicewoman in receipt of a service pension is entitled, with certain exceptions, to free medical benefits for disabilities not service-related. These benefits include general practitioner service, specialist service where necessary, full pharmaceutical benefits, surgical aids and appliances (including spectacles), dental treatment, and treatment in Repatriation General Hospitals.

SERVICE PENSIONS, SUMMARY, AUSTRALIA, 1972-73

	South African War	1914-18 War	1939-45 War	Korea- Malaya operations	Special Overseas Service	Miscel- laneous (a)	Total	
New claims granted . . . . .	..	2,256	22,503	95	17	17	24,888
Restorations . . . . .	..	353	1,022	5	..	4	1,384
Cancellations (gross) . . . . .	..	472	2,045	17	3	1	2,538
Deaths	16	2,946	2,266	5	2	3	5,238	
Pensions in force at 30 June 1973	54	30,813	64,862	310	15	71	96,125	
Annual liability at 30 June 1973	\$'000	47	27,266	54,441	192	7	58	82,011
Amount paid in pensions during 1972-73	\$'000	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	72,316

(a) Act of grace pensions.

NOTE. Discrepancies between the figures shown for 1972-73 and those for previous years result from a complete check of records.

SERVICE PENSIONS: SUMMARY, AUSTRALIA

	1968-69	1969-70(a)	1970-71	1971-72	1972-73(a)
New claims granted	7,479	13,259	10,321	10,349	24,888
Restorations	780	1,642	680	794	1,384
<i>Total additions</i>	8,259	14,901	11,001	11,143	26,272
Cancellations (gross)	5,009	2,858	3,378	5,098	2,538
Deaths	4,601	4,781	5,276	5,135	5,238
<i>Total reductions</i>	9,610	7,639	8,654	10,233	7,776

(a) The increased number of new claims granted and restorations in 1969-70 and 1972-73 were partly due to easing of the means test in those years and to an ageing population of ex-service personnel.

Class of service pensions

The following tables give an analysis of the total number of new claims granted and pensions in force for 1972-73.

SERVICE PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA 1972-73

Class	South African War	1914-18 War	1939-45 War	Korea-Malaya operations	Special Overseas Service	Miscellaneous	Total
Ex-servicemen	1,360	12,434	49	7	9	13,859
Wives and widows of ex-servicemen	888	9,268	29	4	8	10,197
Children	8	801	17	6	..	832
Total	2,256	22,503	95	17	17	24,888

SERVICE PENSIONS: NUMBER IN FORCE, 30 JUNE 1973

State	South African War	1914-18 War	1939-45 War	Korea-Malaya operations	Special Overseas Service	Miscellaneous	Total
New South Wales(a)	14	9,770	19,944	98	9	15	29,850
Victoria	16	8,588	15,563	59	..	28	24,254
Queensland	11	4,909	13,408	76	5	7	18,416
South Australia(b)	5	3,613	6,179	31	1	13	9,842
Western Australia	4	2,780	6,770	39	..	6	9,599
Tasmania	4	1,153	2,998	7	..	2	4,164
Australia	54	30,813	64,862	310	15	71	96,125

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

Number, by class, of service pensions and amount paid

The following tables show the number of each class of service pension in force, the annual liability and the amounts paid for the years 1968-69 to 1972-73.

SERVICE PENSIONS: NUMBER OF EACH CLASS OF PENSION AND ANNUAL LIABILITY AUSTRALIA

Year	Number of service pensions at 30 June payable to—							Total	Annual pension liability at 30 June (\$'000)
	Ex-servicemen who are—			Dependants(a) of ex-servicemen where the ex-serviceman is—					
	Aged ex-servicemen	Permanently unemployable	Suffering from pulmonary tuberculosis	An aged ex-serviceman	Permanently unemployable	Suffering from pulmonary tuberculosis	Miscellaneous		
1968-69	35,404	14,797	1,060	537	14,373	975	22	67,168	33,273
1969-70	37,792	17,362	1,154	821	16,237	1,023	31	74,420	40,929
1970-71	38,666	18,122	1,201	1,017	16,729	1,030	43	76,808	43,334
1971-72	39,657	17,668	1,203	1,186	16,922	1,028	49	77,713	51,432
1972-73	47,430	19,121	1,333	9,488	17,617	1,065	71	96,125	82,011

(a) Includes dependants of deceased service pensioners.

NOTE. See footnote (a) last table previous page.

SERVICE PENSIONS: AMOUNT PAID
(\\$'000)

<i>Place of payment</i>	1968-69	1969-70	1970-71	1971-72	1972-73
New South Wales(a)	11,358	12,806	13,963	15,633	23,011
Victoria	8,070	9,767	10,696	12,075	18,033
Queensland	5,799	7,184	8,042	9,150	13,567
South Australia(b)	3,710	4,253	4,651	5,185	7,467
Western Australia	4,071	4,491	4,769	5,298	7,394
Tasmania	1,093	1,404	1,604	1,841	2,827
Overseas	7	8	7	12	17
Australia	34,108	39,912	43,732	49,194	72,316

(a) Includes Australian Capital Territory. (b) Includes Northern Territory.

Medical treatment for ex-servicemen and dependants of ex-servicemen

Medical treatment is provided for all disabilities which have been accepted as being service-related. In addition, and subject to certain conditions, treatment is provided for disabilities not due to war service for: ex-servicemen and ex-servicewomen receiving war pensions at or exceeding the maximum general (100 per cent) rate; ex-servicemen who have contracted pulmonary tuberculosis; nurses who served in the 1914-18 war; widows and certain dependants of ex-servicemen whose deaths have been accepted as due to war service and of deceased T. & P.I. pensioners; and certain service pensioners, including service pensioners of the South African War 1899-1902. Ex-servicemen who have contracted pulmonary tuberculosis may receive treatment for that condition. During 1972-73 nursing-home-care benefits were extended to T. & P.I. and Intermediate Rate war pensioners suffering from chronic non-war related disabilities and to war widows, widowed mothers and First World War nurses.

In-patient treatment for eligible patients is provided at the six Repatriation General Hospitals (one in each State) and seven auxiliary hospitals and sanatoria as follows: *New South Wales*—Lady Davidson Hospital; *Victoria*—Macleod Hospital and Anzac Hostel; *Queensland*—Kenmore Hospital and Rosemount Hospital; *South Australia*—Birrlee Hospital; and *Western Australia*—The Edward Millen Hospital. The Anzac Hostel specialises in the care and treatment of long-term patients.

The total number of available beds for patients in wards or parts of wards, open for use, in all these institutions at 30 June 1973 was 3,681, and expenditure during 1972-73 amounted to \$45,650,307. In addition, expenditure of \$51,646,866 was incurred during 1972-73 on medical services outside these institutions.

Repatriation hospitals and institutions

Details of full-time staff in Repatriation general hospitals and other Repatriation institutions are given in the following table.

REPATRIATION HOSPITALS AND INSTITUTIONS: FULL-TIME STAFF
30 JUNE 1973

<i>Type of institution</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>
General hospitals—							
Medical staff(a)	142	109	48	32	28	12	371
Nursing staff	719	486	385	217	221	60	2,088
Other staff	1,135	805	485	381	436	120	3,362
<i>Total, general hospitals</i>	<i>1,996</i>	<i>1,400</i>	<i>918</i>	<i>630</i>	<i>685</i>	<i>192</i>	<i>5,821</i>
Other in-patient institutions(b)	248	135	215	..	50	..	648
Out-patient clinics(b)	166	73	22	36	28	..	325
Limb and appliance centres(b)	78	69	29	18	14	13	221
Grand total	2,488	1,677	1,184	684	777	205	7,015

(a) Medical Officers only, excludes psychologists, speech therapists, etc. (b) Total staff.

The following table gives details of in-patients treated at Repatriation general hospitals and other Repatriation institutions in each State. The figures shown refer to treatment episodes, e.g. a person who is admitted to hospital twice during a year is counted twice.

**REPATRIATION GENERAL HOSPITALS AND INSTITUTIONS: IN-PATIENTS
TREATED, 1972-73**

	N.S.W.	Vic.	Qld	S.A.(a)	W.A.	Tas.	Aust.
REPATRIATION GENERAL HOSPITALS							
In-patients at beginning of year	934	548	416	239	281	82	2,500
Admissions and re-admissions during year	17,066	10,400	8,474	5,012	5,978	1,624	48,554
<i>Total in-patients treated</i>	<i>18,000</i>	<i>10,948</i>	<i>8,890</i>	<i>5,251</i>	<i>6,259</i>	<i>1,706</i>	<i>51,054</i>
Discharges	16,243	9,538	8,116	4,736	5,679	1,547	45,859
Deaths	878	847	400	293	287	69	2,774
In-patients at end of year	879	563	374	222	293	90	2,421
Average daily beds occupied	868	536	381	235	273	81	2,373
OTHER REPATRIATION INSTITUTIONS							
In-patients at beginning of year	222	111	123	29	33	..	518
Admissions and re-admissions during year	2,152	980	978	90	320	..	4,520
<i>Total in-patients treated</i>	<i>2,374</i>	<i>1,091</i>	<i>1,101</i>	<i>119</i>	<i>353</i>	<i>..</i>	<i>5,038</i>
Discharges	2,096	919	895	113	305	..	4,328
Deaths	83	57	64	6	8	..	218
In-patients at end of year	195	115	143	..	40	..	493
Average daily beds occupied	198	100	113	16	33	..	461

(a) Birlee Auxiliary Hospital closed 10 February 1973.

In addition to the Repatriation institutions, eligible patients are treated in other country and metropolitan hospitals and nursing homes at Repatriation expense. During 1972-73, 19,485 Repatriation in-patients were accommodated and treated in hospitals and 3,469 in nursing homes.

Repatriation psychiatric patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Repatriation Department in separate wings of psychiatric hospitals administered by the State authorities. Excluding 121 on trial leave, there were 685 Repatriation patients in these hospitals at 30 June 1973.

Out-patient treatment is provided throughout Australia at Repatriation hospitals and clinics and through the Repatriation Local Medical Officer Scheme. During 1972-73, 617,048 out-patients were treated at Repatriation institutions, and visits to or by local medical officers totalled 2,737,634. The number of Repatriation local medical officers in Australia at 30 June 1973 was 6,558.

Artificial limb and appliance services

In each State the Repatriation Department maintains a limb and appliance centre, catering for patients requiring artificial limbs, surgical aids and appliances. The centres fit eligible Repatriation patients and those from other Australian Government departments and instrumentalities, and, when possible, patients from State Government and philanthropic organisations, and private persons who cannot be fitted satisfactorily elsewhere.

Details of production at all centres during 1972-73 are as follows: arms, 185; legs, 1,619; surgical footwear, 8,130; adapted footwear, 1,650; other surgical appliances, 2,213; and repairs, 25,638.

General Repatriation benefits and miscellaneous

Other Repatriation Department activities

In addition to the payment of pensions and the provision of medical treatment, the Department also provides various benefits and allowances designed to meet the needs of special classes of ex-servicemen and their dependants.

These include educational and vocational training schemes, namely the *Soldiers' Children Education Scheme* (full details of which appear later in this section), the *Disabled Members' Training Scheme*, the *War Widows' and Defence Widows' Training Scheme*, the *National Service Vocational Training Scheme* and the *Former Regular Servicemen Vocational Training Scheme*.

In addition, gift cars and an annual allowance for their upkeep are provided for ex-servicemen who, as a result of service, have suffered the amputation of both legs above the knees or amputation of one leg above the knee plus any two other amputations (above the ankle or at or above the wrist) or complete paraplegia resulting in the total loss of the use of both legs. A grant of up to \$100 may be made towards the funeral expenses of eligible ex-servicemen and certain of their dependants. Payment of up to \$10 may be made to provide such necessities as meals, sleeping accommodation, etc., for ex-servicemen in need of immediate relief. Also certain concessions in telephone rental charges are provided for some classes of ex-servicemen and their dependants, including war and service blinded ex-servicemen, war and defence widows and certain service and special rate war pensioners. Ex-servicemen who have been blinded as a result of service may be issued with talking book machines. The Australian Red Cross Society supplies 'book' records or cassettes for these machines, free of charge, thus enabling the blinded to enjoy a wide range of literature.

Expenditure in 1972-73 on general Repatriation benefits for all wars was \$5,880,000, comprising *Soldiers' Children Education Scheme*, \$3,573,000; recreation transport allowance, \$725,000; and other benefits \$1,582,000.

Trust (and other) funds administered by the Repatriation Department held \$13,355,929 in securities (face value) and \$772,678 in cash, a total of \$14,128,607 at 30 June 1973.

Reciprocal arrangements with the United Kingdom, New Zealand and other countries provide for the payment of pensions, etc., to eligible Australian ex-servicemen living overseas and to eligible ex-servicemen from overseas who are living in Australia.

Soldiers' Children Education Scheme

The *Soldiers' Children Education Scheme* was established in 1921 and operates with the assistance of the voluntary Education Boards in each State. These Boards consist of representatives of government and non-government education authorities and of ex-service and other organisations which have a general interest in the welfare of the children of ex-servicemen. The objects of the Scheme are to assist and encourage eligible children in acquiring a standard of education compatible with their aptitude and ability, and to prepare them to enter an agricultural, commercial, professional, or industrial calling of their own choice. Eligible children are children of ex-servicemen whose deaths have been accepted as service-related; or of ex-servicemen who died from causes not service-related but who were receiving at the date of death a war pension at a special rate for blindness, total and permanent incapacity, pulmonary tuberculosis, or amputation of two or more limbs; or of ex-servicemen who, as a result of service, are blinded, totally and permanently incapacitated, or receiving the special rate pension for pulmonary tuberculosis and are likely to receive such pension for a period of at least three years. From the commencement of primary education up to twelve years, school requisites and fares are provided. An education allowance is also payable for a child from commencement of secondary education or from the age of twelve years, whichever is the earlier, while the child is undertaking primary or secondary education. Further assistance beyond, or parallel with, the later years of secondary education is provided where an approved beneficiary continues with a course of specialised education or training necessary for a career. At this stage of training, in addition to the education allowance, fees are paid and text books, essential equipment and other minor benefits are provided.

All education allowances are subject to an allowed income limit test, i.e. the amount of education allowance payable depends on the amount of income a child receives over the allowed limit. The scale of maximum allowances payable to eligible children at various stages of education is as follows.

SOLDIERS' CHILDREN EDUCATION SCHEME WEEKLY RATES OF ALLOWANCES, FROM 1 JANUARY 1974 (\$)

<i>Type of training</i>	<i>Living at home</i>	<i>Living away from home</i>
<i>At school—</i>		
Aged 12 and under 14 years	3.25	10.75
Aged 14 " " 16 years	4.90	10.75
Aged 16 " " 18 years	10.75	16.65
Professional (university, etc.)	16.35	26.93
Agricultural . . . . .	..	5.40
Industrial (apprenticeship, etc.)	3.95	7.80

The following tables show the costs of education under the scheme for the year ended 30 June 1973 and the number of children in receipt of benefit at 30 June 1973.

SOLDIERS' CHILDREN EDUCATION SCHEME: EXPENDITURE, 1972-73
(*\$'000*)

	<i>N.S.W.(a)</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.(b)</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>
Cost of education of beneficiaries—							
Under 12 years of age	5	4	7	1	1	1	19
12 years of age and over	1,338	915	612	336	187	148	3,536
Total expenditure	1,343	919	619	337	188	149	(c) 3,555

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Excludes overseas expenditure of \$18,000.

SOLDIERS' CHILDREN EDUCATION SCHEME: NUMBER RECEIVING BENEFITS(a)
AT 30 JUNE 1973

<i>Type of training</i>	<i>N.S.W. (b)</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A. (c)</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Over- seas</i>	<i>Total</i>
At school—								
Aged under 14 years(d)	570	347	311	117	74	106	4	1,529
Aged 14 and under 16 years	707	465	394	183	124	112	16	2,001
Aged 16 and under 18 years	657	511	202	169	57	51	11	1,658
Total at school	1,934	1,323	907	469	255	269	31	5,188
Professional	492	369	225	148	90	39	13	1,376
Agricultural	4	7	10	1	3	..	..	25
Industrial . . . . .	..	..	..	..	..	..	..	..
Grand total	2,430	1,699	1,142	618	348	308	44	6,589

(a) Refers only to children in receipt of an education allowance. (b) Includes Australian Capital Territory.
(c) Includes Northern Territory. (d) From 12 years of age or the commencement of secondary education, whichever is the earlier.

Settlement of returned service personnel on the land

Reference to the settlement of returned service personnel on the land will be found in the chapter Rural Industry.

Re-establishment benefits for regular and national servicemen

Subject to prescribed conditions, vocational training and business loans are provided for former regular and national servicemen, with a view to ensuring that they are not at a disadvantage when they return to civil life. Appropriate full or part-time training is provided where considered necessary or desirable for effective re-settlement. Payment of tuition fees and associated fees and fares, and of an allowance for necessary books and/or equipment, is made in all approved cases, while trainees who undertake approved full-time training receive living allowances. Loans of up to \$3,000 (business and professional) and \$6,000 (agricultural) may be granted to ex-servicemen in these categories who satisfy prescribed requirements in respect of suitability of their proposed business propositions and adequacy of security.

The Services Canteens Trust Fund

The Services Canteens Trust Fund was established under the *Services Trust Funds Act 1947*. Its funds are derived from the assets and profits of wartime services canteens, mess and regimental funds of disbanded units, and several other sources.

The total amount transferred to the Fund to 31 December 1973 was \$11,057,551. The Act prescribed that, of this, \$5 million and such further amounts as the trustees of the Fund might from time to time decide, should be devoted to the provision of education facilities for the children of eligible ex-servicemen and ex-servicewomen, and that the balance of the Fund should be used to provide relief for ex-servicemen and ex-servicewomen and their dependants in necessitous circumstances.

The Fund is administered by ten honorary trustees appointed by the Governor-General. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of the benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration. Members of regional committees are all persons who served in the 1939-45 War or are widows of men who served during the war. The trustees and members of regional committees serve in an honorary capacity.

Assistance from the Fund

Persons eligible for assistance from the Fund are those who, between 3 September 1939 and 30 June 1947, served in the Australian Naval, Military or Air Forces, including members of the canteens staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Forces who served in an official capacity on full-time paid duty, and their dependants. The trustees have introduced schemes for providing welfare relief for ex-servicemen and ex-servicewomen who are eligible for benefits, and for their dependants; benefits for children of eligible ex-servicemen and ex-servicewomen who are suffering from serious and incapacitating afflictions; and education benefits for the children of eligible ex-servicemen and ex-servicewomen. From its inauguration in 1947 the Fund is to be available for forty years for both welfare relief and educational benefits.

The total assistance granted under these three schemes from the inception of the Fund to 31 December 1973 was \$13,137,257 (\$425,078 during 1973) distributed as follows: *Welfare relief*, \$4,038,229 (\$140,818); *Assistance for afflicted children*, \$340,996 (\$4,485); and *Educational assistance*, \$8,758,032 (\$279,775).

For detailed information on the operation of the Fund reference should be made to the annual reports of the Services Canteens Trust Fund.

Ex-service personnel, widows and children

In November 1971, a survey based on the quarterly population survey (*see* Chapter 20, Employment and Unemployment) was conducted at the request of the Repatriation Department and the Services Canteens Trust Fund. The survey questions were designed to identify four classes of person, namely:

- (a) those who had served in the Australian armed forces during wartime;
- (b) those ex-service personnel who had a disability which had been accepted by the Repatriation Department as having been war-caused and those who were in receipt of a war pension;
- (c) widows of men who had served during wartime;
- (d) children, under 21 years of age, of ex-service personnel or their widows.

Details of the survey were published in Year Book No. 59, page 112 and the mimeographed bulletin *Ex-service Personnel, widows and children*, November 1971 (Reference No. 15.1).

CHAPTER 6

INTERNATIONAL RELATIONS

Australia's international relations have developed as a natural outcome of the country's growth from 19th century colonial status to independent nationhood. Initially, association with Britain and co-operation with the Commonwealth countries were the chief pre-occupations. Later, partly as a consequence of the vital role played in the Pacific by the United States of America in the 1939-45 War and during the Cold War period in ensuring Australian security, close relations were also developed with that country.

Although these links remain important factors in Australia's foreign policy, the emphasis in recent years has become increasingly focused on participation in regional associations and relations with Asian and Pacific countries. At the same time, since Australia's interests are world-wide, Australia is not neglecting the development or expansion of relations with countries of all ideologies in all parts of the world.

Australia's foreign policy today aspires to a more independent stance; one that is less militarily oriented, not liable to suggestions of racism, and one that will achieve for Australia regard in the world at large as a distinctive, tolerant and co-operative nation.

Relations with Asia and the Pacific

Asia and the Pacific are the areas of Australia's primary interest and concern. This has long been reflected by Australia's active role in regional associations and organisations such as the United Nations Economic Commission for Asia and the Far East (ECAFE), which has recently been renamed the Economic Commission for Asia and the Pacific, the Colombo Plan, the Asian Development Bank, the South-East Asia Treaty Organisation (SEATO), the South Pacific Forum, the South Pacific Commission and in many other commercial and professional bodies, both private and government. This involvement was further developed in 1973. Australia became an Associate Member of the South-East Asian Ministers of Education Organisation (SEAMEO) on 1 September 1973 and a full Member of the Ministerial Conference for the Economic Development of South-East Asia (MEDSEA) on 12 October 1973.

Australia's policy in the Asian and Pacific regions is one of continuing and constructive involvement. Australia believes that peace and prosperity there largely depend on the ability of countries in the area to co-operate with one another to secure these objectives; and for major powers, both local and external, to reach a durable accommodation of interests in which the fears and aspirations of the others and the independence of the smaller or less populous countries of the region will be respected. As new situations emerge Australia will develop flexible approaches towards relations with countries of these regions. Australia welcomed the ceasefire in Vietnam and is currently contributing through its aid program to assist the economic reconstruction and rehabilitation of the whole Indo-China area.

In the longer term, Australia seeks new forms of regional co-operation that are geared to the realities of the present and future. It would like to see consideration given by all countries of the region to the creation of new regional arrangements that would be genuinely representative of the Asia-Pacific region, without ideological overtones, and designed to help free the region from great power rivalries and ideological interference from outside. However, Australia recognises that such arrangements cannot be achieved quickly, and will have to evolve from within the region. Australia is flexible on the timing, structure and membership of any new regional arrangements.

Australia welcomes the progress achieved by the Association of South-East Asian Nations (ASEAN), which it considers a model of successful regional co-operation in South-East Asia. Australia also follows with interest ASEAN initiatives towards contributing to regional peace and stability and welcomes the objective that the ASEAN member countries have set for themselves of a zone of peace, freedom and neutrality in South-East Asia. Australia has been invited by ASEAN to co-operate with it on agreed economic projects and has entered into discussions with ASEAN to this end.

Australia places high priority on maintaining and strengthening its cordial and close relations with Indonesia, its nearest neighbour. Australia believes that its future is linked to Indonesia's, and that the relations between the two countries are of enduring importance.

Australia also gives high priority to developing and strengthening her relations with Japan, both bilaterally and through international forums, on a basis of mutual trust and understanding. The two nations have become increasingly interdependent in economic terms: Japan is Australia's biggest trading partner and Australia is Japan's second largest source of imports. Both countries have a common interest in the Asia-Pacific region's economic and political development.

Diplomatic relations were established with the People's Republic of China in December 1972, and the Australian Embassy in Peking opened on 12 January 1973. Australia looks forward to the development of a substantial relationship with this major power in the Asian region, and arrangements for a number of exchanges in trade and cultural fields have already commenced.

Australia also recognises the importance of its link with the Indian sub-continent, and has taken steps to strengthen its relationship with the countries of the area.

In the Pacific, Australia looks to consolidate and to expand its co-operative activities to promote the stability, welfare, harmony and economic development of the region. Australia has long been an active member of the South Pacific Commission and was a founding member of the South Pacific Forum. Matters of common interest and concern are regularly discussed with Australia's Pacific partners. Australia also gives the highest priority to its relations with Papua New Guinea.

Relations with the Major Powers

Australia maintains close and continuing co-operation with the United States. This finds expression in the ANZUS treaty, which is vital for Australian security and a reflection of the common interest and mutual relationship of its signatories.

Australia will also continue to promote the development of close co-operation with the Soviet Union and China, both of which have substantial interests in the Asian and Pacific region.

Relations with Britain and the Commonwealth

Although aspects of the relationship are changing, the ties of kinship that most Australians have with Britain remain strong. Despite divergences in our respective approaches to certain world problems, Australia's relationship with Britain will nevertheless continue to be of great importance. There are opportunities in many fields for mutually beneficial co-operation, which will be facilitated by our close ties of friendship.

Australia also attaches great importance to the Commonwealth of Nations, a unique multi-racial group which brings Australia into more intimate and informal contact at all levels with African, Asian and Caribbean countries. Australia will continue to take an active role in the meetings of Commonwealth Heads of Government, and will co-operate in economic, scientific and technical programs for social and economic advancement.

Relations with Europe, Africa, the Middle East and South America

Australia also recognises the importance of relations with other parts of the world, including Europe, Africa, the Middle East and South America. This has been reflected in increased Australian diplomatic representation in those areas. The extent of Australia's trade will be expanded with the European Economic Community which is an indication of the nation's commercial interests abroad. There is also increasing scope for co-operation in cultural, scientific and technical fields. Australia, in 1971, joined the OECD (Organisation for Economic Co-operation and Development) which has provided a useful link with countries experiencing similar social and economic circumstances.

The accelerating development of Australia's relations with African, Middle East and Central and South American countries reflects Australia's growing identity of interest in resources control and management, the role of middle and lesser powers, and the issues of colonialism and racism.

United Nations Participation

Australia played an active part in drafting the Charter of the United Nations at the Conference on International Organisation in San Francisco in 1945, and has been a consistent supporter of the principles and objectives of the United Nations since its foundation. Its influence in the affairs of the United Nations has been exerted through the annual debates in the General Assembly, through membership of the Security Council (1946-47, 1956-57 and 1973-74), the Economic and Social Council (1948-50, 1953-55 and 1962-64), and the Trusteeship Council, and of the several specialised agencies.

Australia, as one of the administering powers of Nauru up to January 1968, and as the sole administering power of New Guinea, has been a member of the Trusteeship Council since 1947. The Australian Ambassador to the United Nations, was elected president of the Council at its 37th session in May 1970. Australia is a member of the Special Committee on Colonialism (the Committee of Twenty-four) and the Committee to consider measures for keeping the Indian Ocean a zone of peace. In 1950, Australia contributed to the participating United Nations forces in Korea. It has also been directly involved in United Nations peace-keeping activities in Greece (1947), Palestine (1947), Indonesia (1948-49), Kashmir (1947), the Arab States and Israel (1948), Hungary (1956-57) and Cyprus (since 1964). It is also a member of the special Committee on Peace-keeping Operations. Australia contributed its share of the costs, both assessed and voluntary, of the United Nations operations in the Congo. It also contributes personnel for United Nations observer missions in India/Pakistan and the Middle East, and has made voluntary contributions totalling \$US1,720,000 (to 31 December, 1973) to the costs of maintaining the United Nations force in Cyprus besides bearing the cost (approximately \$3.4m) of maintaining its police element in Cyprus. It also bought \$US4,000,000 worth of United Nations bonds. These were issued to meet financial difficulties arising mainly from the cost of these operations, and from the failure of some member States to pay assessed contributions toward the Middle East and Congo operations.

In the economic, social and cultural sphere, Australia has contributed to the work of the United Nations through membership of its specialised agencies and of the Economic and Social Council. It was a foundation member of one of the four United Nations Regional Economic Commissions—the Economic Commission for Asia and the Far East, the 4th, 15th and 24th Sessions of which were held in Australia. In 1963, Australia became a full regional member of ECAFE which has recently been renamed the Economic Commission for Asia and the Pacific.

Australia has had varying periods of service as a member of the executive bodies of the principal specialised agencies. As a leading agricultural country, Australia played a large part in the establishment of the Food and Agriculture Organisation. The 10th Regional FAO Conference for Asia and the Far East was held in Canberra in August-September 1970. Australia continues to be a member of the International Civil Aviation Organisation, the International Telecommunication Union, the World Meteorological Organisation, the Inter-Governmental Maritime Consultative Organisation, the International Atomic Energy Agency, and Universal Postal Union. It is also a member of the United Nations Development Program, the International Labour Organisation, the World Health Organisation, UNESCO and numerous financial and other bodies. Australia became a member of the United Nations Governing Council for Environmental Programs for three years from 1973.

Australia's commitment to the United Nations ideal is based on the belief that only through such a body can there be concerted international efforts for the maintenance of a stable and harmonious world order. The purposes of the Charter are, indeed, basic to Australia's approach to international relations. The manifesto of the governing Labor Party commits it to 'make every effort to make the United Nations an effective instrument for justice and peace and political, social and economic advancement'.

In accordance with its support for the principle of the peaceful settlement of disputes, Australia has referred to the International Court of Justice for judicial settlement its dispute with the French Government over atmospheric nuclear tests in the South-West Pacific.

The Australian Government has given positive support to regional initiatives and condemned colonialism and racial discrimination.

At the 1973 session of the United Nations General Assembly Australia supported resolutions calling for self-determination, decolonisation and opposing racial discrimination, especially in Africa. It called for the strict enforcement of sanctions against the illegal racist regime in Zimbabwe. Australia at the same time made it clear that it did not endorse the use of force to achieve these objectives.

Australia supported the 1973 resolution re-affirming the Declaration of the Indian Ocean as a zone of peace and continued its membership of the Ad Hoc Committee of 15 to study the implications of the declaration. These actions demonstrated Australia's concern with questions affecting the future stability of the Indian Ocean and its readiness to play a responsible part in regional initiatives.

Since its election to office, the Labor Government has signed the two International Covenants on Human Rights, and has taken action to expedite ratification of the United Nations Convention of the Elimination of all Forms of Racial Discrimination. In addition, it has ratified the Nuclear Non-Proliferation Treaty and the Seabed Arms Control Treaty, and I.L.O. Conventions Numbers 83, 86, 87, 98, 111 and 131. Recently, the Labor Government ratified the Convention Relating to the Status of Stateless Persons; the Convention on the Reduction of Statelessness, and the Protocol Relating to the Status of Refugees.

Australia's Official Development Assistance to Less-Developed Countries

Since 1945, Australia has spent over \$2,300 million on aid. In the last decade, official development assistance has more than trebled from \$86 million in 1963-64 to \$261 million in 1973-74. For 1974-75 it is expected to reach \$337 million. This represents an expenditure of about \$25 per head of population in Australia.

Australia's aid to less-developed countries was 0.52 per cent of GNP in 1973-74.

The table below shows Australia's official development assistance during the years 1970-71 to 1973-74 and total post-war expenditure to 1973-74.

AUSTRALIA'S OFFICIAL DEVELOPMENT ASSISTANCE TO LESS-DEVELOPED COUNTRIES (\$'000)

	1970-71	1971-72	1972-73 (a)	1973-74	Total 1945-46 to 1973-74
BILATERAL PROGRAMS—					
Commonwealth Co-operation in Education Scheme	732	790	871	1,006	8,533
Colombo Plan(b)	24,567	27,201	33,670	30,185	317,403
Special Commonwealth African Assistance Plan	497	548	576	1,025	5,704
South Pacific Aid Program	543	996	1,158	2,318	6,534
SEATO—Aid Program	1,891	1,999	1,805	..	29,484
Indus Waters Scheme	663	2,021	878	207	20,428
Food Aid Convention	11,840	11,788	14,728	28,557	90,344
Foreign Exchange Operations Fund—Laos	643	643	634	638	6,175
Exchange Support Fund—Khmer Republic . . . . .	..	..	773	344	1,117
Emergency Food Aid—Indonesia, India, Pakistan, Ethiopia . . . . .	..	..	2,454	262	36,678
Special Aid—Khmer Republic, South Vietnam, Indo-China	1,350	(c)1,306	584	779	4,019
Refugee Relief	200	2,300	..	..	3,481
Disaster Relief	176	50	107	78	1,738
Rehabilitation and Relief Aid for Bangladesh . . . . .	..	1,515	1,977	..	3,492
Aid to Papua New Guinea	125,040	136,536	144,302	177,076	1,515,906
Other Bilateral Aid	172	247	269	313	1,843
<i>Total bilateral aid</i>	<i>168,314</i>	<i>187,940</i>	<i>204,786</i>	<i>242,788</i>	<i>2,052,879</i>
MULTILATERAL PROGRAMS—					
Financial Institutions—					
International Development Association	2,815	6,864	5,696	6,870	55,000
Asian Development Bank	4,120	662	2,680	2,822	29,258
Other . . . . .	..	..	..	..	49,585
United Nations Programs—					
United Nations Development Program(d)	1,785	1,735	1,781	1,997	22,279
United Nations International Children's Emergency Fund	825	550	558	632	18,131
United Nations Relief and Works Agency	180	180	180	199	4,600
World Food Program	963	843	731	1,742	8,369
United Nations Relief and Rehabilitation Administration . . . . .	..	..	..	..	49,586
United Nations High Commissioner for Refugees	262	175	290	200	2,814
United Nations Korean Reconstruction Agency . . . . .	..	..	..	..	3,598
International Refugee Organisation . . . . .	..	..	..	..	7,274
Other	50	106	159	2,032	3,189
Other Agencies—					
South Pacific Commission	276	331	351	508	5,155
Other	182	254	1,061	1,673	3,634
<i>Total</i>	<i>11,458</i>	<i>11,700</i>	<i>13,507</i>	<i>18,675</i>	<i>262,472</i>
<i>Less IBRD Repayments</i>	<i>..</i>	<i>..</i>	<i>396</i>	<i>706</i>	<i>1,102</i>
<i>Total multilateral aid</i>	<i>11,458</i>	<i>11,700</i>	<i>13,111</i>	<i>17,969</i>	<i>261,370</i>
Total official development assistance	179,772	199,640	217,897	260,757	2,314,249

(a) Includes new items previously not reported as aid. (b) Excludes aid to Papua New Guinea of \$4,479 in 1973-74. This amount included under "Aid to Papua New Guinea". (c) Includes \$420,000 contributed to Exchange Support Fund (Khmer Republic). (d) Includes United Nations Special Fund and United Nations Expanded Program of Technical Assistance.

More than two-thirds of Australia's aid goes to Papua New Guinea (see Chapter 30, The Territories of Australia). The remainder is channelled through multilateral programs (e.g. the U.N. Agencies and the Asian Development Bank) and through Australia's bilateral programs. The following table sets out the countries which receive bilateral aid.

AUSTRALIA'S BILATERAL AID BY GEOGRAPHICAL REGION AND COUNTRY(a)
(S'000)

Country	1972-73	1973-74	Country	1972-73	1973-74			
ASIA—								
Bangladesh	5,691	10,598	New Hebrides	65	113			
Bhutan	98	114	Papua New Guinea	144,302	177,076			
Burma	873	1,763	Tonga	168	452			
India	1,312	1,358	Western Samoa	252	282			
Indonesia	23,070	21,184	Other	42	78			
Khmer Republic	1,934	836	<i>Total Oceania</i>	<i>146,379</i>	<i>181,207</i>			
Korea, Republic of	633	391	AFRICA—					
Laos	1,112	1,399	Ethiopia	16	850			
Malaysia	3,386	2,819	Ghana	153	142			
Nepal	434	242	Kenya	107	108			
Pakistan	1,688	2,617	Mauritius	328	695			
Philippines	1,528	1,923	Nigeria	149	172			
Singapore	476	580	Tanzania	67	417			
Sri Lanka	1,601	3,067	Zambia	145	165			
Thailand	3,724	3,119	Other	379	406			
Vietnam, Republic of	6,262	3,728	<i>Total Africa</i>	<i>1,344</i>	<i>2,955</i>			
Vietnam, North	660	EUROPE—Total 5 8					
Other	2,668	2,101	AMERICA—Total 65 44					
<i>Total Asia</i>	<i>56,490</i>	<i>58,499</i>	UNSPECIFIED—Total 503 75					
OCEANIA—								
British Solomon Islands	99	171	Total bilateral aid 204,786 242,788					
Fiji	1,277	2,629						
Gilbert and Ellice Islands	174	406						

(a) Countries which received more than \$100,000 from Australia in 1973-74 are shown separately.

This bilateral aid is channelled through a number of programs, which include the Colombo Plan, the South Pacific Aid Program and the Special Commonwealth African Assistance Plan. The largest of these is the Colombo Plan which is the principal framework for economic development within the Asian region.

Through these programs, Australia assists with a number of developmental projects including the provision of experts and equipment, balance of payments support and training of students.

The following table sets out the numbers of students who have been trained in Australia under the aid programs.

PERSONS FROM LESS-DEVELOPED COUNTRIES FINANCED BY AND TRAINED IN AUSTRALIA
(Number)

Scheme	Cumulative total at 30 June 1973	Total in training at 30 June 1973	Number of new awards 1972-73
Australian/Asian University Aid and Co-operation Scheme	20	15	10
Australian International Awards Scheme	(a)153	11	7
Australian School of Pacific Administration	488	213	349
Colombo Plan	12,918	1,601	1,064
Commonwealth Practical Training Scheme	451	123	230
Commonwealth Co-operation in Education Scheme	1,470	203	168
Special Commonwealth African Assistance Plan	1,014	81	128
South East Asian Treaty Organisation	86	..	..
South Pacific Aid Program	424	66	82
Total	17,024	2,313	2,038

(a) Includes 18 students trained under South-East Asian Scholarship Scheme.

Diplomatic representation

The Department of Foreign Affairs is responsible for advising the Minister for Foreign Affairs and the Australian Government on the conduct of foreign affairs and relations with foreign governments. Its officers staff the Australian diplomatic service and the consular and administrative service.

In June 1974, Australia maintained the following diplomatic and consular missions overseas and full details of these missions are available from the Department of Foreign Affairs, Canberra, A.C.T.

NOTE. In certain cases the Head of Mission accredited to one country is also accredited to another country. Where this is the case the name of the country in which the Head of Mission is located is shown in brackets. Except where indicated the missions are located in capital cities.

AUSTRALIAN MISSIONS OVERSEAS

Embassies

Afghanistan (<i>in</i> Pakistan)	Indonesia	Peru
Arab Republic of Egypt	Iran	The Philippines
Argentina	Iraq (<i>in</i> Lebanon)	Poland
Austria	Ireland	Portugal
Belgium	Israel	Romania (<i>in</i> Yugoslavia)
Brazil	Italy	Saudi Arabia
Bulgaria (<i>in</i> Yugoslavia)	Ivory Coast (<i>in</i> Accra)	South Africa, Republic of
Burma	Japan	Spain
Chile	Khmer Republic	Sudan (<i>in</i> Arab Republic of Egypt)
China, People's Republic of	Republic of Korea	Sweden
Costa Rica (<i>in</i> Mexico)	Kuwait (<i>in</i> Jeddah)	Switzerland
Czechoslovakia (<i>in</i> Austria)	Laos	Thailand
Denmark	Lebanon	Turkey, Republic of
Ethiopia (<i>in</i> Kenya)	Luxembourg (<i>in</i> Belgium)	Union of Soviet Socialist Republics
Finland (<i>in</i> Sweden)	Maldives (<i>in</i> Sri Lanka)	United States of America
France	Mexico	Uruguay (<i>in</i> Argentina)
Germany, Democratic Republic of (<i>in</i> Poland)	Mongolia (<i>in</i> Moscow)	Venezuela (<i>in</i> Peru)
Germany, Federal Republic of	Nepal (<i>in</i> India)	Vietnam, Democratic Republic of
Greece	The Netherlands	Vietnam, Republic of
Guatemala (<i>in</i> Mexico)	Norway (<i>in</i> Sweden)	Yugoslavia
Holy See (<i>in</i> the Netherlands)	Pakistan	
Hungary (<i>in</i> Austria)	Panama (<i>in</i> Mexico)	
	Malagasy Republic (<i>in</i> Tanzania)	

High Commissions

Bangladesh	India	Singapore
Bahamas (<i>in</i> Canada)	Jamaica (<i>in</i> Canada)	Sri Lanka
Barbados (<i>in</i> Canada)	Kenya	Swaziland (<i>in</i> South Africa)
Botswana (<i>in</i> South Africa)	Lesotho (<i>in</i> South Africa)	Tanzania
Britain	Malaysia	Tonga (<i>in</i> Fiji)
Canada	Malta	Trinidad and Tabago (<i>in</i> Canada)
Cyprus (<i>in</i> Greece)	Mauritius (<i>in</i> Tanzania)	Uganda (<i>in</i> Kenya)
Fiji	Nauru	Western Samoa (<i>in</i> Fiji)
Ghana	New Zealand	Zambia (<i>in</i> Tanzania)
Guyana (<i>in</i> Canada)	Nigeria	

Commissions

Hong Kong
Papua New Guinea

Other

Mission to—European Atomic Energy Community (Brussels); European Coal and Steel Community (Brussels); European Communities (Brussels); United Nations (New York); United Nations (Geneva); Organisation for Economic Co-operation and Development (Paris).

Consulate-General in—Los Angeles; New York; San Francisco; Chicago; Berlin; Hamburg; Osaka; Milan; Bombay; Calcutta; Karachi; Bahrain; Sao Paulo.

Consulate in—Graz; Geneva; Noumea; Capetown; Honolulu; Rio de Janeiro.

Specialist officers of the Department of Overseas Trade, other Australian Government Departments and the Defence Services stationed abroad are attached to Australian diplomatic or consular missions. Senior attached officers are in some cases accredited to the missions with diplomatic or consular ranks approved by the Minister for Foreign Affairs. In addition, the Department of Overseas Trade maintains Trade Commissioner posts which engage in trade promotion in a number of cities where Australia does not have diplomatic or consular representation (*see page 130*).

The Department of Labor and Immigration similarly maintains offices overseas which engage in selection of migrants.

Agents-General for States

From early times the Australian colonies maintained agents in London to encourage immigration and to carry out commercial and financial negotiations. Since Federation the States have continued to maintain Agents-General in London, all of whom work in close co-operation with the High Commissioner for Australia at Australia House, London. Some of the States also maintain other offices overseas, e.g. New South Wales has offices in New York, Tokyo and Wiesbaden.

Diplomatic representatives in Australia

There are fifty-two non-Commonwealth and ten Commonwealth countries represented in Australia.

The following list shows the diplomatic missions in Australia. Full details of Commonwealth and foreign representation in Australia are available from the Department of Foreign Affairs, Canberra. Consular representatives are not included and particulars of these are available from the Department of Foreign Affairs, Canberra. There are about 300 such representatives in Australia, and sixty countries are represented.

DIPLOMATIC REPRESENTATION TO AUSTRALIA

Embassies

Arab Republic of Egypt	Guatemala (<i>in Japan</i>)	The Philippines
Argentina	Holy See	Poland
Austria	Hungary (<i>in Indonesia</i>)	Portugal
Bangladesh	Indonesia	Romania (<i>in Japan</i>)
Belgium	Iran	South Africa, Republic of
Brazil	Ireland	Spain
Bulgaria (<i>in Indonesia</i>)	Israel	Sweden
Burma	Italy	Switzerland
Chile	Japan	Thailand
China, Peoples Republic of	Khmer Republic	Turkey, Republic of
Czechoslovakia (<i>in Indonesia</i>)	Korea	Union of Soviet Socialist Republics
Denmark (<i>in New Zealand</i>)	Laos	United States of America
Finland	Lebanon	Uruguay
France	Mexico	Vietnam, Democratic Republic of
Germany, Democratic Republic of	Nepal (<i>in Japan</i>)	Vietnam, Republic of
Germany, Federal Republic of	The Netherlands	Yugoslavia, Socialist Federal Republic of
Greece	Norway	
	Pakistan	
	Peru	

High Commissions

Britain	India	Singapore
Canada	Malaysia	Sri Lanka
Fiji	Malta	
Ghana	New Zealand	

Overseas trade representation

The Australian Trade Commissioners Service, January 1974

The Department of Overseas Trade maintains Trade Commissioners at fifty-five posts in forty-one countries. Twenty-five editions of the Department of Overseas Trade's promotion periodical *Austral News* now circulate in more than 100 countries in seven languages. (See also Australian Trade Missions in the chapter Overseas Transactions.)

The countries where Australian Trade Commissioner posts are located are shown in the following list. Except where indicated the missions are located in capital cities.

Argentina	India	The Philippines
Austria	Indonesia	Poland
Bahrain	Iran	Singapore
Belgium	Italy (Rome, Milan)	South Africa, Republic of (Johannesburg, Cape Town)
Brazil	Japan (Tokyo, Osaka)	Sweden
Britain	Korea	Switzerland (Geneva, Berne)
Canada (Montreal, Vancouver, Ottawa, Toronto)	Kenya	Thailand
Chile	Lebanon	Trinidad
China, Peoples Republic of	Malaysia	Arab Republic of Egypt
Fiji	Mexico	United States of America (Washington, D.C., Chicago, New York, San Francisco, Los Angeles)
France	The Netherlands	U.S.S.R.
Germany, Federal Republic of (Bonn, Hamburg)	New Zealand (Wellington, Auckland, Christchurch)	Yugoslavia
Greece	Pakistan	
Hong Kong	Papua New Guinea	
	Peru	

Full details of the Australian Trade Commissioner posts are available from the Department of Overseas Trade, Canberra, A.C.T.

Australian Trade Correspondents and Marketing Officers

Detached Australian Trade Correspondents and Marketing Officers have no official status but supplement the work of the Trade Commissioner in whose Territory they are located. Correspondents are located in Addis Ababa, Ethiopia; Istanbul, Turkey; Port Louis, Mauritius; Marketing Officers are located in Bombay and Calcutta, India; Colombo, Sri Lanka; Dublin, Ireland; Madrid, Spain; Rangoon, Burma; Rio de Janeiro, Brazil; and Tel Aviv, Israel.

Trade Commissioners of overseas governments in Australia

The Trade Representatives of overseas governments in Australia are shown in the following list. Full details of Trade Representatives in Australia are available from the Department of Foreign Affairs, Canberra, A.C.T.

Austria (Sydney)	Mexico (Sydney)
Belgium (Sydney, Melbourne, Perth)	New Zealand (Sydney, Melbourne, Canberra, Brisbane, Perth)
Britain (Canberra, Sydney, Melbourne, Brisbane, Adelaide, Perth)	Norway (Canberra)
Bulgaria (Sydney)	Pakistan (Sydney)
Canada (Sydney, Melbourne)	Peru (Canberra)
China, People's Republic of (Canberra)	Philippines (Sydney, Melbourne)
Czechoslovakia (Sydney)	Poland (Sydney)
Finland (Sydney)	Romania (Sydney)
France (Sydney, Melbourne)	Singapore (Sydney)
Greece (Sydney)	South Africa, Rep. of (Melbourne)
Hungary (Sydney)	Spain (Sydney)
Italy (Sydney, Canberra, Melbourne)	Sri Lanka (Sydney)
Indonesia (Sydney, Canberra)	Sweden (Sydney, Melbourne)
Japan (Canberra)	United States of America (Sydney, Melbourne)
Malaysia (Sydney)	U.S.S.R. (Canberra)

CHAPTER 7

POPULATION

This chapter includes statistics of the distribution, growth and structure of the population and statistics of the numbers and characteristics of overseas arrivals and departures. More detailed figures will be found in the bulletin *Demography* (4.9), and *Overseas Arrivals and Departures* (4.1 and 4.23), and current statistics are published in the *Monthly Review of Business Statistics* (1.4), the *Quarterly Summary of Australian Statistics* (1.3), the *Estimates of Population, Births and Deaths (Preliminary)* (4.16), the *Summary of Vital and Population Statistics* (4.11) and *Overseas Arrivals and Departures* (4.3). The final detailed results of each population census are published in a series of volumes and parts (*see list for 1971 censuses at end of this Year Book, also the chapter Miscellaneous—Statistical and other official publications of Australia*).

With the proclamation of the *Constitution Alteration (Aboriginals)* 1967 on 10 August 1967 the provision in Section 127 of the Constitution requiring the exclusion of Aborigines in reckoning the numbers of the people of the Commonwealth or of a State or other part of the Commonwealth, was repealed. Accordingly, population statistics for all dates subsequent to 10 August 1967 no longer exclude full-blood Aborigines. Estimates for earlier periods back to 30 June 1961 have also been revised to include these Aborigines.

Particulars of the Aboriginal population are given on pages 150–1 in this chapter.

Types of population statistics

Statistics of the population and its characteristics for Australia or the component States and Territories or other constituent areas at specific dates are of four main types:

- (i) *Those ascertained by census enumeration.* The population censuses result in comprehensive statistics of characteristics of the population, such as age, sex and birthplace.
- (ii) *Those ascertained by 'population counts'.* From time to time in specific areas there are additional enumerations of the population, which are known as population counts, because normally very little information other than the number of persons and their sex is obtained.
- (iii) *Current estimates of number, sex and age.* Estimates are prepared for dates subsequent to a census, taking account of natural increase and net migration since the last census.
- (iv) *Projections of the population.* Projections of the population and its age/sex structure are prepared from time to time, based on current estimates of population by age and sex and on assumptions about future trends in mortality, fertility and net migration.

The census

In Year Book No. 53, a special article was included outlining the history, purposes, legal basis, organisation, and publication of results of population censuses in Australia (*see pages 164–70 of that issue*).

Early 'musters'

Although regular censuses were not instituted in the several colonies until the years specified in the table below, population returns in one form or another have existed from a very early period in the history of Australia. The earliest enumerations were known as 'musters', and although the actual results of very few of them have been preserved, it is probable that during the early days of colonisation they were of frequent occurrence. The first official 'muster' was taken in 1788 soon after the new settlement at Sydney Cove was formed, and in 1803 the first 'muster' of convicts in Van Diemen's Land (now Tasmania) was conducted.

Development of the census

The first regular census in Australia was taken in New South Wales in November 1828, and included the population of Moreton Bay (now Queensland) but not Van Diemen's Land (Tasmania). Particulars were asked concerning the names, ages and civil conditions of the inhabitants. The next

census was taken in 1833, and was followed by another in 1836, when arrangements were made for the enumeration of the population of the newly-established settlement at Port Phillip (Victoria). The first censuses taken in Tasmania, Victoria and Queensland as separate colonies were in 1841, 1854 and 1861 respectively. The first regular census in South Australia was taken in 1844 and in Western Australia in 1848. The 1881 census was the first simultaneous census taken in Australia and formed part of the first simultaneous census of the British Empire.

The following table shows the total population recorded at each census conducted prior to 1891.

POPULATION(a), CENSUSES IN AUSTRALIA, 1828 TO 1886

Date	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1828- November	36,598	..	..	..	..	..	..	..	..
1833- 2 September	60,794	..	..	..	..	..	..	..	..
1836- 2 September	77,096	..	..	..	..	..	..	..	..
1841- 2 March	130,836	..	..	..	..	..	..	..	..
1841- 31 December	..	..	..	..	..	51,450	..	..	..
1844- 26 February	..	..	..	17,366	..	..	..	..	..
1846- 26 February	..	..	..	22,390	..	..	..	..	..
1847- 2 March	189,609	..	..	..	..	..	..	..	..
1847- 31 December	..	..	..	..	..	67,313	..	..	..
1848- 10 October	..	..	..	..	4,622	..	..	..	..
1851- 1 January	..	..	..	63 700	..	..	..	..	..
1851- 1 March	268,344	..	..	..	..	70,130	..	..	..
1954- 26 April	..	(b)234,298	..	..	..	..	..	..	..
1855- 30 September	..	..	..	..	11,743	..	..	..	..
1855- 31 March	..	..	..	85,821	..	..	..	..	..
1856- 1 March	269,722	..	..	..	..	..	..	..	..
1857- 29 March	..	408,998	..	..	..	..	..	..	..
1859- 31 March	..	..	..	..	..	81,492	..	..	..
1859- 31 December	..	..	..	..	14,837	..	..	..	..
1861- 7 April	350,860	538,628	(b)30,059	126,830	..	89,977	..	..	..
1864- 1 January	..	..	61,467	..	..	..	..	..	..
1866- 26 March	..	..	..	163,452	..	..	..	..	..
1868- 2 March	..	..	99,901	..	..	..	..	..	..
1870- 7 February	..	..	..	..	..	99,328	..	..	..
1871- 31 March	..	..	..	..	24,785	..	..	..	..
1871- 2 April	502,998	730,198	..	185,626	..	..	..	..	..
1876- 1 September	..	..	120,104	..	..	..	..	..	..
1876- 26 March	..	..	..	213,271	..	..	..	..	..
1881- 1 May	..	..	173,283	..	..	..	..	..	..
1881- 3 April	749,825	861,566	213,525	276,414	29,708	115,705	(c)3,451	..	2,250,194
1886- 1 May	..	..	322,853	..	..	..	..	..	..

(a) Excludes full-blood Aborigines. (b) Previously included with New South Wales. (c) Included with South Australia for the censuses of 1866, 1871 and 1876. Actually Northern Territory was not transferred to the Commonwealth until 1 January 1911.

Australia-wide censuses

State and Territory populations recorded at the Australia-wide censuses taken over the period 1881 to 1971 are shown in the following table. The figures relate to the political boundaries of the several States (or Colonies) and Territories as they existed at the date of each census, except that the Northern Territory has been shown separately from South Australia for the censuses prior to its transfer from that State. The years of formation of the separate Colonies and transfer of the Territories are shown in the chapter Discovery, Colonisation and Federation of Australia (page 5).

At censuses up to 1966, in conformity with Section 127 of the Constitution, Aborigines were excluded from the published population. In 1967 the Constitution was altered to remove this provision, and the 1971 Census therefore includes Aborigines. In order to provide comparability between recent censuses, the 1961 and 1966 population in the following tables has been amended to include Aborigines.

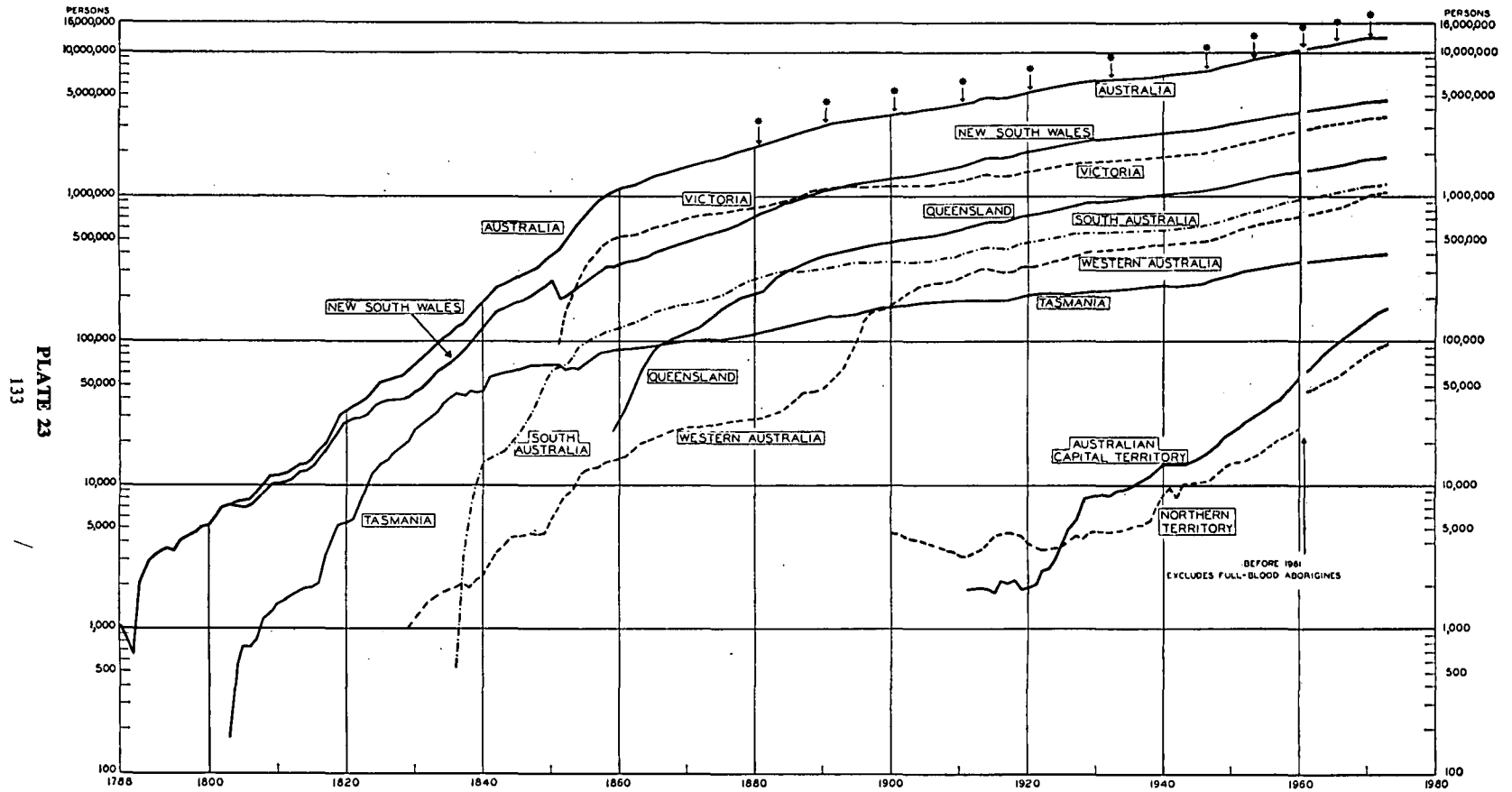
POPULATION, BY SEX: AUSTRALIAN CENSUSES, 1881 TO 1971

Census	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.(a)	Aust.
MALES									
3 April 1881	410,211	451,623	125,325	146,183	17,062	61,162	3,347	..	1,214,913
5 April 1891	609,666	598,222	223,779	162,241	29,807	77,560	4,560	..	1,705,835
31 March 1901	710,005	603,720	277,003	180,485	112,875	89,624	4,216	..	1,977,928
3 April 1911	857,698	655,591	329,506	207,358	161,565	97,591	2,734	992	2,313,035
4 April 1921	1,071,501	754,724	398,969	248,267	177,278	107,743	2,821	1,567	2,762,870
30 June 1933	1,318,471	903,244	497,217	290,962	233,937	115,097	3,378	4,805	3,367,111
30 June 1947	1,492,211	1,013,867	567,471	320,031	258,076	129,244	7,378	9,092	3,797,370
30 June 1954	1,720,860	1,231,099	676,252	403,903	330,358	157,129	10,288	16,229	4,546,118
30 June 1961(b)	1,973,700	1,474,536	779,265	491,406	380,740	177,628	25,046	30,858	5,333,179
30 June 1966(b)	2,126,652	1,614,240	849,390	550,196	432,569	187,391	31,159	49,991	5,841,588
30 June 1971(b)	2,307,210	1,750,061	921,665	586,051	529,066	196,442	48,627	73,589	6,412,711

For footnotes see end of table.

POPULATION OF AUSTRALIA, 1788 TO 1973

LOGARITHMIC GRAPH



NOTE. THE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO THE RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY THE SCALE

• AUSTRALIAN CENSUS

POPULATION, BY SEX: AUSTRALIAN CENSUSES, 1881 TO 1971—*continued*

Census	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.(a)	Aust.
FEMALES									
3 April 1881	339,614	409,943	88,200	130,231	12,646	54,543	104	..	1,035,281
5 April 1891	517,471	541,866	169,939	153,292	19,975	69,107	338	..	1,471,988
31 March 1901	644,841	597,350	221,126	177,861	71,249	82,851	595	..	1,795,873
3 April 1911	789,036	659,960	276,307	201,200	120,549	93,620	576	722	2,141,970
4 April 1921	1,028,870	776,556	357,003	246,893	155,454	106,037	1,046	1,005	2,672,864
30 June 1933	1,282,376	917,017	450,317	289,987	204,915	112,502	1,472	4,142	3,262,728
30 June 1947	1,492,627	1,040,834	538,944	326,042	244,404	127,834	3,490	7,813	3,781,988
30 June 1954	1,702,669	1,221,242	642,007	393,191	309,413	151,623	6,181	14,086	4,440,412
30 June 1961(b)	1,944,801	1,455,830	748,249	480,081	366,010	172,712	19,435	27,970	5,215,088
30 June 1966(b)	2,111,249	1,605,977	824,934	544,788	415,531	184,045	25,345	46,041	5,757,910
30 June 1971(b)	2,293,970	1,752,290	905,400	587,656	501,403	193,971	37,763	70,474	6,342,927

PERSONS

3 April 1881	749,825	861,566	213,525	276,414	29,708	115,705	3,451	..	2,250,194
5 April 1891	1,127,137	1,140,088	393,718	315,533	49,782	146,667	4,898	..	3,177,823
31 March 1901	1,354,846	1,201,070	498,129	358,346	184,124	172,475	4,811	..	3,773,801
3 April 1911	1,646,734	1,315,551	605,813	408,558	282,114	191,211	3,310	1,714	4,455,005
4 April 1921	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734
30 June 1933	2,600,847	1,820,261	947,534	580,949	438,852	227,599	4,850	8,947	6,629,839
30 June 1947	2,984,838	2,054,701	1,106,415	646,073	502,480	257,078	10,868	16,905	7,579,358
30 June 1954	3,423,529	2,452,341	1,318,259	797,094	639,771	308,752	16,469	30,315	8,986,530
30 June 1961(b)	3,918,501	2,930,366	1,527,514	971,487	746,750	350,340	44,481	58,828	10,548,267
30 June 1966(b)	4,237,901	3,220,217	1,674,324	1,094,984	848,100	371,436	56,504	96,032	11,599,498
30 June 1971(b)	4,601,180	3,502,351	1,827,065	1,173,707	1,030,469	390,413	86,390	144,063	12,755,638

(a) Part of New South Wales before 1911. (b) Includes Aborigines.

Increase since 1901 census

POPULATION: INTERCENSAL INCREASES, 1901 TO 1971

State or Territory	1901-1911 (10 years)	1911-1921 (10 years)	1921-1933 (12½ years)	1933-1947 (14 years)	1947-1954 (7 years)	1954-1961 (7 years)	1961-1966 (a) (5 years)	1966-1971 (a) (5 years)
--------------------	-------------------------	-------------------------	--------------------------	-------------------------	------------------------	------------------------	-------------------------------	-------------------------------

NUMERICAL INCREASE

N.S.W.(b)	293,602	453,637	500,476	383,991	438,691	493,484	319,400	363,279
Vic.	114,481	215,729	288,981	234,440	397,640	477,772	289,851	282,134
Qld	107,684	150,159	191,562	158,881	211,844	200,569	146,810	152,741
S.A.	50,212	86,602	85,789	65,124	151,021	172,246	123,497	78,723
W.A.	97,990	50,618	106,120	63,628	137,291	96,858	101,350	182,369
Tas.	18,736	22,569	13,819	29,479	51,674	41,588	21,096	18,977
N.T.	-1,501	557	983	6,018	5,601	10,626	12,023	29,886
A.C.T.(c)	..	858	6,375	7,958	13,410	28,513	37,204	48,031
Australia	681,204	980,729	1,194,105	949,519	1,407,172	1,521,656	1,051,231	1,156,140

AVERAGE ANNUAL RATE OF INCREASE—PER CENT

N.S.W.(b)	1.97	2.46	1.76	0.99	1.98	1.94	1.58	1.66
Vic.	0.91	1.53	1.42	0.87	2.56	2.58	1.90	1.69
Qld	1.98	2.24	1.86	1.11	2.53	2.04	1.85	1.76
S.A.	1.32	1.94	1.31	0.76	3.05	2.83	2.42	1.40
W.A.	4.36	1.66	2.29	0.97	3.51	2.03	2.58	3.97
Tas.	1.04	1.12	0.51	0.87	2.65	1.82	1.18	1.00
N.T.	-3.67	1.57	1.87	5.93	6.12	7.37	4.90	8.86
A.C.T.(c)	..	4.14	10.71	4.65	8.70	9.93	10.30	8.45
Australia	1.67	2.01	1.63	0.96	2.46	2.26	1.92	1.92

(a) Includes Aborigines. (b) Includes Australian Capital Territory before 1911. (c) Part of New South Wales before 1911.

Minus sign (-) denotes decrease.

Population estimates

The estimated population for Australia as a whole takes account of natural increase and net overseas migration since the latest census. The population in each State and Territory is estimated by adding to the population ascertained at the census the recorded natural increase and the net gain from overseas migration for that State or Territory; gains and corresponding losses that result from movements between States and Territories are also taken into account in so far as they are recorded as transfers of residence under child endowment procedures or Federal electoral procedures or are indicated by the results of any special count. As records of migration by State or Territory are not complete, the estimated State and Territory populations so derived are approximate.

Estimates carried forward in this way eventually reach the point when another census is taken, and the numbers so ascertained supersede those resulting from the estimates. In the light of the census results the estimates for the newly completed intercensal period are revised to adjust for the differences between the new census result and the population at the census date estimated on the basis of the previous census. This is to bring intercensal estimates into line with the two census results and thus effect adjustment for unrecorded or inaccurately recorded movement of population in the intercensal period. Such a revision is made when the preliminary (field count) results of a census become available. Further revision may be necessary when the final results of a census become available. The final results of the Census of Population and Housing of 30 June 1971 have been taken into account in the population estimates for dates subsequent to the Census of 30 June 1966.

Final revised estimates become the permanent population estimates. A mean population for twelve month periods is calculated by the method described on page 139. As populations at specific dates are used in these calculations, consequential revisions are made to mean populations when estimates for specific dates are revised as described above.

The method used for estimating State and Territory populations, as described above, is different from that used prior to June 1961 (for particulars *see* Year Book No. 52, page 191). Population estimates subsequent to the 1961 Census are based on a method which excludes holiday, business or other similar short-term movements between States and Territories since the census. As a consequence, marked quarterly seasonal movements in some States due to interstate holiday movements are reflected in population figures prior to 1961 but not for subsequent years. This has some effect on the continuity of the series of mean population figures and should be borne in mind when making calculations which use mean populations as a basis (*see* page 139). Since June 1961 such movements affect the estimates only in so far as people who were on holiday or other short-term interstate travel at the time of the Census are counted in the population of the State or Territory where they spent Census night. However, there are seasonal features in the movement of the populations of States and Territories due to movements of visitors from overseas and of Australians travelling overseas for holiday, business or other similar short-term periods.

Growth of population

ESTIMATED POPULATION(a): DECEMBER, 1945 TO 1973

31 Dec.	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
MALES									
1945	1,464,686	994,784	556,829	312,588	251,590	125,854	7,252	8,283	3,721,866
1950	1,627,618	1,114,497	620,329	364,705	294,758	147,103	9,414	13,021	4,191,445
1955	1,774,382	1,281,891	696,544	423,042	343,838	165,356	11,149	17,615	4,713,817
1960	1,951,907	1,453,815	766,448	483,802	372,665	180,511	14,785	29,140	5,253,073
1965	2,112,610	1,602,058	841,926	544,257	427,330	186,483	30,632	48,333	5,793,629
1969	2,251,495	1,710,586	898,857	574,692	500,378	194,788	42,580	64,962	6,238,338
1970	2,292,534	1,739,916	914,631	584,357	520,174	196,363	46,561	70,341	6,364,877
1971	2,330,339	1,766,582	933,944	591,668	537,781	197,444	49,525	77,113	6,484,396
1972	2,351,748	1,787,949	956,480	596,101	544,918	198,461	51,019	83,579	6,570,255
1973	2,370,619	1,804,333	980,420	603,181	554,342	199,849	53,172	89,741	6,655,657

(a) *See* footnote at end of table.

ESTIMATED POPULATION(a): DECEMBER, 1945 TO 1973—continued

31 Dec.	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Arst.
FEMALES									
1945	1,468,312	1,020,323	528,035	318,294	238,498	124,426	3,294	7,149	3,708,331
1950	1,613,439	1,122,685	585,089	358,138	277,891	143,230	5,006	10,558	4,116,036
1955	1,752,152	1,264,441	662,314	411,619	324,771	159,563	6,803	16,345	4,598,008
1960	1,925,354	1,434,475	735,838	473,220	358,368	175,458	10,002	26,132	5,138,847
1965	2,098,439	1,593,802	817,497	538,701	410,918	183,125	24,832	44,465	5,711,779
1969	2,239,270	1,710,592	880,833	574,683	476,242	192,210	33,251	61,798	6,168,879
1970	2,281,201	1,742,115	898,153	585,873	493,878	193,890	36,261	67,221	6,298,592
1971	2,321,149	1,770,953	918,376	593,827	511,116	195,380	39,369	73,675	6,423,845
1972	2,345,483	1,793,068	942,152	600,440	520,845	197,091	42,336	79,626	6,521,041
1973	2,367,497	1,811,487	966,100	607,953	530,057	199,244	44,912	85,651	6,612,901
PERSONS									
1945	2,932,998	2,015,107	1,084,864	630,882	490,088	250,280	10,546	15,432	7,430,197
1950	3,241,057	2,237,182	1,205,418	722,843	572,649	290,333	14,420	23,579	8,307,481
1955	3,526,534	2,546,332	1,358,858	834,661	668,609	324,919	17,952	33,960	9,311,825
1960	3,877,261	2,888,290	1,502,286	957,022	731,033	355,969	24,787	55,272	10,391,920
1965	4,211,049	3,195,860	1,659,423	1,082,958	838,248	369,608	55,464	92,798	11,505,408
1969	4,490,765	3,421,178	1,779,690	1,149,375	976,620	386,998	75,831	126,760	12,407,217
1970	4,573,735	3,482,031	1,812,784	1,170,230	1,014,052	390,253	82,822	137,562	12,663,459
1971	4,651,488	3,537,535	1,852,320	1,185,495	1,048,897	392,824	88,894	150,788	12,908,241
1972	4,697,231	3,581,017	1,898,632	1,196,541	1,065,763	395,552	93,355	163,205	13,091,296
1973	4,738,116	3,615,820	1,946,520	1,211,134	1,084,399	399,093	98,084	175,392	13,268,558

(a) Excludes full-blood Aborigines before 1961. The final results of the Census of 30 June 1971 have been taken into account in the preparation of estimates for dates after the Census of 30 June 1966. See text page 135.

The estimated population at 31 December each year from 1788 to 1946 is shown in *Demography*, Bulletin No. 67, 1949, and for the period 1901–1971 in *Demography*, Bulletin No. 87 (see also Statistical Summary in this Year Book). A graph illustrating the growth of the population of Australia and of each State and Territory appears on plate 23, page 133.

Proportions of area and of population, density and masculinity

PROPORTIONS OF AREA AND OF POPULATION: DENSITY AND MASCULINITY
OF POPULATION: 31 DECEMBER 1973

State or Territory	Proportion of total area per cent	Proportion of population, 31 December 1973 (per cent)			Density(a)	Masculinity(b)
		Males	Females	Persons		
New South Wales	10.44	35.62	35.80	35.71	5.91	100.13
Victoria	2.92	27.11	27.39	27.25	16.14	99.61
Queensland	22.49	14.73	14.61	14.67	1.13	101.48
South Australia	12.81	9.06	9.19	9.13	1.23	99.22
Western Australia	32.89	8.33	8.02	8.17	0.43	104.58
Tasmania	0.89	3.00	3.01	3.01	5.89	100.30
Northern Territory	17.53	0.80	0.68	0.74	0.07	118.39
Australian Capital Territory	0.03	1.35	1.30	1.32	73.08	104.78
Australia	100.00	100.00	100.00	100.00	1.73	100.65

(a) Number of persons per square kilometre. (b) Number of males per 100 females.
NOTE. Additional information about density and masculinity appears later in this chapter.

Elements of increase

The 'total increase' of the population is obtained by combining 'natural increase', i.e. the excess of births over deaths, with 'net migration', i.e. the excess of arrivals over departures. Comparison of the total increase so obtained with that derived by subtracting the population recorded at one census from that recorded at the next census reveals differences which are attributable partly to differences in the coverage of the census enumerations, and partly to deficiencies in the records of the elements of increase.

In the following table figures for increase in total population include, in addition to the recorded natural increase and net overseas migration gain, adjustments to make the series of increases agree with total intercensal increases revealed by successive censuses (up to the Census of 30 June 1971). The adjustment reflects the combined net error in the recording of births, deaths and migration during the five year period and in the census enumerations.

POPULATION: ELEMENTS OF INCREASE, AUSTRALIA, 1946 TO 1973

Period	Natural increase (a)	Net overseas migration gain(b)	Increase in total population(c)		
			Males	Females	Persons
1946-50	529,447	353,084	469,579	407,705	877,284
1951-55	599,702	413,824	522,372	481,972	1,004,344
1956-60	679,857	405,022	539,256	540,839	1,080,095
1961-65	690,294	399,888	519,623	553,784	1,073,407
1966-70	665,310	543,808	571,248	586,813	1,158,061
1969	143,680	117,955	130,153	131,482	261,635
1970	144,468	111,784	126,539	129,713	256,252
1971	165,712	79,060	119,519	125,253	244,772
1972	155,209	27,847	85,859	97,196	183,055
1973	136,844	40,418	85,402	91,860	177,262

(a) Excess of births registered over deaths registered. From September 1939 to June 1947, deaths of defence personnel whether overseas or in Australia are included. Excludes full-blood Aborigines before 1961. (b) Excess of recorded overseas arrivals over recorded overseas departures. Excludes troop movements for the period September 1939 to June 1947. (c) Increase in total population as recorded at censuses or as estimated for intercensal periods. Excludes full-blood Aborigines before 1961.

Rate of population growth

In the following two tables natural increase refers to the excess of births over deaths, net migration refers to excess of overseas arrivals over departures (excluding overseas movement of defence personnel for the period September 1939 to June 1947) and total increase is the sum of natural increase and net migration together with adjustments to make the series of increases agree with total intercensal increases revealed by successive census results (up to the Census of 30 June 1971).

Average annual rates of population growth for periods greater than one year are calculated on the compound interest principle. If P_0 and P_t are populations at the beginning and end of a t -year period, and r is a rate, then $P_t = P_0(1 + r)^t$. The average annual percentage rate of population growth is thus

$$100 \left(\sqrt[t]{\frac{P_t}{P_0}} - 1 \right)$$

The average annual rate of natural increase and net migration is computed by dividing the average annual rate of total increase between its components in proportion to the fraction of total increase due to each component during the period. Differences between the sum of the rates of natural increase and of net migration and the rate of total increase are due to the intercensal adjustment.

Rates of natural increase and net migration are more conventionally shown as rates per 1,000 of mean population. Figures prepared on this basis are shown in the table on page 139. Crude birth and death rates, also calculated as rates per 1,000 of mean population, are shown in Chapter 8 (see pages 179 and 190).

**POPULATION: ANNUAL RATE OF GROWTH, AUSTRALIA
1946 TO 1973
(Per cent)**

<i>Period</i>	<i>Natural increase(a)(b)</i>	<i>Net migration</i>	<i>Total increase(b)</i>
<i>Average annual rate—</i>			
1946–50	1.36	0.91	2.26
1951–55	1.38	0.95	2.31
1956–60	1.40	0.83	2.22
1961–65	1.27	0.74	1.98
1966–70	1.11	0.91	1.94
<i>Annual rate—</i>			
1969	1.18	1.06	2.15
1970	1.16	0.99	2.07
1971	1.31	0.67	1.93
1972	1.20	0.22	1.42
1973	1.04	0.31	1.35

(a) From September 1939 to June 1947, deaths of defence personnel, whether overseas or in Australia, are included. (b) Excludes full-blood Aborigines before 1961.

The average annual rate of population growth during the present century has been 1.73 per cent, but the results from year to year have deviated widely from this figure. In the following table the period 1 January 1901 to 31 December 1973 has been arranged into certain defined groups of years according to the occurrence of influences markedly affecting the growth of population.

**POPULATION(a): PERIODIC RATES OF GROWTH, AUSTRALIA
1901 TO 1973**

<i>Period</i>	<i>Interval (years)</i>	<i>Total increase (‘000)</i>	<i>Average annual numerical increase (‘000)</i>	<i>Average annual rate of population growth (per cent)</i>		
				<i>Natural increase</i>	<i>Net migration</i>	<i>Total</i>
1901 to 1913	13	1,128	87	1.55	0.49	2.04
1914 to 1923	10	862	86	1.49	0.15	1.64
1924 to 1929	6	680	113	1.26	0.62	1.88
1930 to 1939	10	569	57	0.82	0.02	0.85
1940 to 1946	7	513	73	0.98	0.01	1.01
1947 to 1952	6	1,222	204	1.37	1.19	2.54
1953 to 1961	9	1,862	207	1.40	0.79	2.17
1962 to 1970	9	2,021	225	1.16	0.85	1.95
1971 to 1973	3	605	202	1.18	0.39	1.57

(a) Excludes full-blood Aborigines before 1962.

Up to 1913, the rate of natural increase was rising, and this factor, coupled with the impetus given to immigration from 1911 onwards by increased government assistance, was responsible for the comparatively high annual rate of 2.04 per cent during this period. The 1914–18 War was a dominating influence in the decade 1914–23, and its effects can be seen in the reduction of the rate from 2.04 to 1.64 per cent. From 1924 to 1929, more settled and prosperous conditions were experienced: encouraged migration was resumed on a large scale and, despite a further decline in the rate of natural increase owing to the persistent fall in the birth rate, the annual rate of growth rose to 1.88 per cent. After 1929, came the economic depression, and immigration ceased—in fact, Australia actually lost people through an excess of departures over arrivals in 1930, 1931, 1932 and 1935. The rate of natural increase also fell, and the annual rate of growth of the population fell to 0.85 per cent. With the outbreak of the 1939–45 War, Australia entered a new phase in her demographic history. The immediate effect of the war was to increase the number of marriages and to reverse the downward trend in fertility. The number of births increased each war year from 1940 to 1945, and these increases more than offset the rise in deaths due to war casualties and higher civilian death rates. As might be expected, migration over these years was negligible. The period 1947 to 1961 was marked by a continued high natural increase and a resumption of immigration, the latter resulting in very high net

gains in each of the four years 1949 to 1952. During the period 1962 to 1970 net migration has continued at the same rate as in the previous decade but there was a decline in the crude birth rate and rate of natural increase from 1962. In recent years a decline in net migration has led to a lower rate of growth.

Rates of population growth from 1901 are shown for each State and Territory of Australia in the bulletin, *Demography* (see also Statistical Summary in this Year Book). Estimated rates of growth of the population of Australia in comparison with those for other countries of the world for the period 1963-1972 are shown in the table on page 155.

**RATES OF NATURAL INCREASE AND NET
MIGRATION(a): AUSTRALIA, 1946 TO 1973**

Period	Rate of natural increase(b)	Rate of net migration
Average annual rate—		
1946-50	13.63	8.96
1951-55	13.61	9.18
1956-60	13.81	8.13
1961-65	12.60	6.90
1966-70	11.05	8.18
Annual rate—		
1969	11.71	10.51
1970	11.53	9.81
1971	12.96	6.62
1972	11.95	2.14
1973	10.39	3.07

(a) Natural increase or net migration during each period per thousand of mean population for the period. (b) From September 1939 to June 1947, deaths of defence personnel, whether overseas or in Australia, are included. Excludes full-blood Aborigines before 1961.

Mean population

The mean populations given below are calculated for twelve-month periods to provide an average basis for calculations requiring allowance for the continuous change in population figures during such periods. Mean populations are used for the calculation of rates such as crude birth, death and marriage rates and per capita rates of consumption, income, etc.

The mean population for any year has been calculated by the formula:

$$\text{Mean population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where *a*, *b*, *c*, *d*, and *e*, respectively, are the populations at the end of the quarter immediately preceding the year and at the end of each of the four succeeding quarters; e.g. in the case of a calendar year, 31 December of the preceding year, and 31 March, 30 June, 30 September and 31 December of the year under consideration. This formula gives a close approximation to the mean of a theoretical population progressing smoothly through the five values *a*, *b*, *c*, *d*, and *e*.

MEAN POPULATION: CALENDAR YEARS, 1969 TO 1973

Year ended 31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1969	4,445,959	3,388,417	1,764,206	1,140,015	955,660	385,079	73,137	121,645	12,274,118
1970	4,530,444	3,450,523	1,795,394	1,158,623	994,201	388,180	79,301	131,851	12,528,517
1971	4,611,705	3,510,362	1,830,463	1,176,483	1,031,614	391,242	86,424	144,132	12,782,425
1972	4,673,329	3,557,678	1,873,334	1,189,378	1,056,508	393,183	91,610	157,221	12,992,241
1973	4,715,196	3,596,778	1,919,417	1,202,603	1,072,680	396,890	95,884	169,004	13,168,452

MEAN POPULATION: FINANCIAL YEARS, 1968-69 TO 1972-73

Year ended 30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1969	4,402,499	3,356,773	1,747,372	1,131,384	935,985	382,710	70,434	116,812	12,143,969
1970	4,490,009	3,420,609	1,779,988	1,149,134	975,063	386,665	76,068	126,637	12,404,173
1971	4,571,920	3,481,370	1,812,297	1,168,115	1,013,455	389,739	82,996	137,605	12,657,497
1972	4,646,786	3,535,807	1,850,988	1,183,704	1,046,627	392,399	89,195	150,767	12,896,273
1973	4,695,806	3,579,058	1,896,559	1,195,641	1,064,207	394,928	93,737	163,161	13,083,097

Geographic distribution of population

Criteria for the delimitation of urban boundaries

The criteria used for delimiting urban centres, were determined by the Thirty-First Conference of Statisticians, October 1969, and are as follows.

At each Census of Population and Housing a boundary shall be defined in accordance with these Resolutions for each population cluster of 1,000 or more population (and, for known holiday resorts of less population, if they contain 250 or more dwellings of which at least 100 are occupied). These clusters shall be named *urban centres* and the population and dwellings enumerated in them shall be classified as urban for statistical purposes.

Resolution 3 stated that around each urban centre with a population of at least 100,000, a further boundary shall be defined, after consultation with planners, to contain the anticipated development of the urban centre and associated smaller urban centres for a period of at least twenty years. Such a boundary should delimit an area which is now, or is expected to be, socially and economically oriented towards the urban centre. It shall consist of complete local government areas if possible. This fixed boundary (as distinct from the urban boundary which is moving) will delimit an area which, for general statistical purposes, is free from the practical problems imposed by the moving boundary, but which nevertheless represents the city in a wider sense.

In delimiting urban centres with 25,000 or more population:

- (a) all contiguous census collector's districts which have a population density of 200 or more persons per square kilometre shall be included. Consequently, State, statistical division, local government area and other administrative boundaries shall be disregarded;
- (b) a collector's district which is known to contain a high proportion of holiday homes shall be classified as urban if the dwelling density is 50 dwellings per square kilometre or greater;
- (c) a collector's district consisting mainly of land used for factories, airports, small sports areas, cemeteries, hostels, institutions, prisons, military camps or certain research stations shall be classified as urban if contiguous with collector's districts which are themselves urban;
- (d) any collector's district which consists mainly of land used for large sporting areas, large parks, explosives handling and munitions areas, or holding yards associated with meatworks and abattoirs shall be classified as urban only if it is bordered on three sides by collector's districts which are themselves urban;
- (e) any area which is completely surrounded by collector's districts which are urban must itself be classified as urban;
- (f) where an urban centre of 25,000 or more population is separated from another urban centre by a gap in actual development of less than 3 kilometres (by the shortest rail or road distance), the gap shall be bridged by classifying a connecting collector's district or districts as urban, and therefore treating the urban centres as one; if the gap is 3 or more kilometres (and whether or not it is comprised mainly of reserved land or a natural barrier) the urban centres shall remain separate;
- (g) any area included in an urban centre in 1971 or thereafter under the provisions of this Resolution shall continue to be so included unless the population of the urban centre falls below 25,000, in which case this Resolution will cease to apply;
- (h) large peripheral collector's districts in growth areas shall be fragmented; and so far as the availability of visible boundary features allows, the fragments so created shall be as near square-shaped as possible and of such a size that they will contain a collector's workload when fully developed. For the purposes of delimiting urban centres such fragments shall be regarded as collector's districts.

In delimiting urban centres with less than 25,000 population:

- (a) the urban centres shall be delimited subjectively (by the inspection of aerial photographs, by field inspection and/or by consideration of any other information that is available);
- (b) all continuous urban growth is to be included (which, in small urban centres, would not necessarily occur if the density criterion were applied), together with any close but non-contiguous development which could be clearly regarded as part of the centre. However, cognisance shall be taken of Resolution 3 (*see above*), where appropriate, particularly in urban centres which are approaching a population of 25,000.

In selecting the boundaries for the splitting of collector's districts, cognisance shall be taken, where appropriate, of the boundaries of land-use zones:

- (a) For State capital cities, nomenclature for the area delimited by—
 - (i) the urban, and
 - (ii) the outer boundary

- shall be (using Melbourne as the example)—
- (i) Urban Melbourne, and
 - (ii) Melbourne Statistical Division;
- (b) In other cases where the dual boundary concept is employed, the nomenclature shall be (using Newcastle as the example)—
- (i) Urban Newcastle, and
 - (ii) Newcastle Statistical District;
- (c) In cases where only a single boundary is delineated, the nomenclature shall be (using Cairns as the example) Urban Cairns;
- (d) Where an urban centre is formed by the coalescence of two or more named localities, the urban centre shall be assigned a name agreed upon after consultation with the Deputy Commonwealth Statistician of the State concerned.

These criteria were similar to those used at the 1966 Census, the main changes being:

- (a) the elimination of the 'indentation' provision. At the 1966 Census an indented area was included within the urban centre if the distance across the 'neck' was less than one mile;
- (b) a re-interpretation of the 'enclosure' rule. At the 1966 Census land was included within the urban centre if it was completely surrounded by the urban centre itself (or in part by the sea or a wide unbridged river). In 1971, if one part of this surround was the sea or a wide unbridged river this rule was not applied.

At the 1971 Census these concepts were used to determine the urban boundaries of all those centres expected to reach 25,000 population in 1971. These were Sydney, Broken Hill, Maitland, Newcastle, Tamworth, Wagga Wagga, Gosford-Woy Woy and Wollongong in New South Wales; Albury-Wodonga, which is in both New South Wales and Victoria; Melbourne, Geelong, Ballarat and Bendigo in Victoria; Brisbane, Bundaberg, Cairns, Mackay, Rockhampton, Toowoomba and Townsville in Queensland; Gold Coast, which is in both New South Wales and Queensland; Adelaide and Whyalla in South Australia; Perth in Western Australia; Hobart and Launceston in Tasmania; Canberra, which is in both the Australian Capital Territory and New South Wales; and Darwin in the Northern Territory.

A change in nomenclature has been made with the introduction of the term *major urban* in place of *metropolitan*. At the 1966 Census, the latter covered the capital city urban areas. At the 1971 Census *major urban* covers population living in urban centres of 100,000 or more population. Thus in New South Wales the term covers urban population in Sydney, Newcastle, Wollongong and that part of the Municipality of Queanbeyan which is included in Urban Canberra. In Victoria it refers to the urban population in Melbourne and Geelong, and in other States the capital city urban population.

The population classified as *rural* at the 1971 Census comprises those persons who were not enumerated in urban centres and who were not classified as *migratory*. The migratory population comprises those persons who, on the night of 30 June, were traveling on board ships in Australian ports, or on board ships travelling between Australian ports, or were enumerated on long-distance trains, motor coaches, or on aircraft.

URBAN AND RURAL POPULATION(a): CENSUS 30 JUNE 1971

Division	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
PERSONS									
Major urban	3,176,980	2,509,298	818,423	809,482	641,800	129,928	..	140,864	8,226,775
Other urban	897,600	562,830	631,585	183,187	198,395	159,652	55,411	..	2,688,660
<i>Total urban</i>	<i>4,074,580</i>	<i>3,072,128</i>	<i>1,450,008</i>	<i>992,669</i>	<i>840,195</i>	<i>289,580</i>	<i>55,411</i>	<i>140,864</i>	<i>10,915,435</i>
Rural	520,641	427,920	373,392	179,148	187,657	100,418	30,605	3,199	1,822,980
Migratory	5,959	2,303	3,665	1,890	2,617	415	374	..	17,223
Total	4,601,180	3,502,351	1,827,065	1,173,707	1,030,469	390,413	86,390	144,063	12,755,638
PERCENTAGES									
Major urban	69.05	71.65	44.79	68.97	62.28	33.28	..	97.78	64.50
Other urban	19.51	16.07	34.57	15.61	19.25	40.89	64.14	..	21.08
<i>Total urban</i>	<i>88.56</i>	<i>87.72</i>	<i>79.36</i>	<i>84.58</i>	<i>81.54</i>	<i>74.17</i>	<i>64.14</i>	<i>97.78</i>	<i>85.57</i>
Rural	11.32	12.22	20.44	15.26	18.21	25.72	35.43	2.22	14.29
Migratory	0.13	0.07	0.20	0.16	0.25	0.11	0.43	..	0.14
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(a) Includes Aborigines. For definition of urban, rural, etc., see explanation preceding this table.

Classification of urban centres by size

The following table classifies the urban centres in Australia into grades of size of population at the Censuses of 30 June 1966 and 1971.

A table showing the aggregate urban population at the 1961 Census of all cities and towns outside the metropolitan area of each State with 2,000 or more, and 3,000 or more, urban inhabitants was included in Year Book No. 51, page 267. A table showing similar data for the 1954 Census was included in Year Book No. 47, page 295 and one for the 1947 Census in Year Book No. 40, page 334. Comparisons between these various tables can be made only if allowance is made for changes in the status and structure of local government areas and for changes in the manner of determining urban population at each census.

**URBAN CENTRES: NUMBER AND POPULATION(a) IN GROUPS OF VARIOUS SIZES
AUSTRALIA, CENSUSES 1966 AND 1971**

Population size of urban centres	Census, 30 June 1966			Census, 30 June 1971		
	Number of urban centres	Population	Percentage of Australian population	Number of urban centres	Population	Percentage of Australian population
500,000 and over	5	6,497,827	56.02	5	7,388,886	57.93
100,000-499,999	4	620,705	5.35	5	837,889	6.57
75,000- 99,999	1	92,311	0.80	..	..	..
50,000- 74,999	5	279,031	2.41	5	321,270	2.52
25,000- 49,999	5	178,108	1.54	12	408,751	3.20
20,000- 24,999	11	248,664	2.14	8	177,712	1.39
15,000- 19,999	17	286,020	2.47	16	276,541	2.17
10,000- 14,999	19	225,779	1.95	22	259,992	2.04
5,000- 9,999	61	445,982	3.85	66	467,184	3.66
2,500- 4,999	103	355,532	3.07	110	378,964	2.97
2,000- 2,499	50	110,830	0.96	52	115,700	0.91
1,000- 1,999	178	253,686	2.19	180	257,922	2.02
Less than 1,000(b)	27	18,873	0.16	38	24,624	0.19
Total urban population	486	9,613,348	82.88	519	10,915,435	85.57
Cumulative—						
500,000 and over	5	6,497,827	56.02	5	7,388,886	57.93
100,000 " " " "	9	7,118,532	61.37	10	8,226,775	64.50
75,000 " " " "	10	7,210,843	62.17	10	8,226,775	64.50
50,000 " " " "	15	7,489,874	64.57	15	8,548,045	67.01
25,000 " " " "	20	7,667,982	66.11	27	8,956,796	70.22
20,000 " " " "	31	7,916,646	68.25	35	9,134,508	71.61
15,000 " " " "	48	8,202,666	70.72	51	9,411,049	73.78
10,000 " " " "	67	8,428,445	72.66	73	9,671,041	75.82
5,000 " " " "	128	8,874,427	76.51	139	10,138,225	79.48
2,500 " " " "	231	9,229,959	79.57	249	10,517,189	82.45
2,000 " " " "	281	9,340,789	80.53	301	10,632,889	83.36
1,000 " " " "	459	9,594,475	82.72	481	10,890,811	85.38
Total urban population	486	9,613,348	82.88	519	10,915,435	85.57

(a) Includes Aborigines.

(b) Urban centres classified as such on grounds other than population and density.

Urban population centres

The following table shows the population of selected population centres in each State and Territory of Australia at the Census of 30 June 1971.

At the Census of 30 June 1966 new methods were used to define the boundaries of capital city and other urban areas for statistical purposes. These methods, and modifications made for the 1971 Census, are described on pages 140-1.

Annual post-censal population estimates are made for all local government areas. Copies of publications showing the estimated population of local government areas, statistical divisions and statistical districts can be obtained from the office of the Deputy Commonwealth Statistician in each capital city.

For the urban centres recognised at the census but not definable in terms of local government area boundaries, only a few post-censal estimates are available. For the capital cities and for some other cities and towns the definition of urban boundaries has resulted in the urban population as delineated at the 1971 Census being significantly larger than the population within the corresponding local government area of the same name. For further details see also Bulletin 6, *Population and Dwellings in Local Government Areas and Urban Centres*, parts 1-9, Census of Population and Housing, 30 June 1971.

The following table shows population in statistical divisions (for State Capital cities) and statistical districts (for other major cities—viz., Canberra, Newcastle, Wollongong and Geelong). These boundaries, which are fixed, circumscribe the area which is now, or is expected to be, socially and economically oriented towards the urban centre with a population of 75,000 or more. The statistical division and statistical district boundaries are expected to remain unchanged for a substantial number of years.

POPULATION IN STATISTICAL DIVISIONS AND STATISTICAL DISTRICTS, 1971 TO 1973

Area(a)	State	Population at 30 June		
		1971(b)	1972	1973
Sydney Statistical Division	N.S.W.	2,807,828	2,850,630	2,874,380
Newcastle Statistical District	N.S.W.	351,536	354,630	357,770
Wollongong Statistical District	N.S.W.	199,048	202,830	205,780
Melbourne Statistical Division	Vic.	2,503,450	2,546,700	2,583,900
Geelong Statistical District	Vic.	122,087	124,550	126,500
Brisbane Statistical Division(c)	Qld	867,784	888,000	911,000
Adelaide Statistical Division	S.A.	842,693	855,000	868,000
Perth Statistical Division	W.A.	703,199	723,600	739,200
Hobart Statistical Division	Tas.	153,216	154,720	157,870
Canberra Statistical District(d)	A.C.T.	158,880	173,100	185,000

(a) The population of all component local government areas may be obtained from the relevant bulletin issued by the office of the Deputy Commonwealth Statistician of the State concerned. (b) Population at census date. (c) Includes Ipswich; the population of the City of Ipswich was 65,000 at 30 June 1973. (d) Includes the City of Queanbeyan in New South Wales (17,810 at 30 June 1973).

The following table shows the urban population centres exceeding 10,000 population in each State and Territory at the Census of Population and Housing, 30 June 1971 and, at 30 June 1972 and 1973.

URBAN POPULATION CENTRES EXCEEDING 10,000 POPULATION, 30 JUNE 1971 TO 1973

Area	Population at 30 June—		
	1971(a)	1972	1973
New South Wales—			
Albury (urban centre)(b)	27,403	..	..
Albury (City)	28,420	29,220	29,800
Armidale (City)	18,156	18,660	19,210
Bathurst (City)	17,196	17,500	17,680
Broken Hill (City)	29,808	29,310	28,810
Budgewoi Lake (urban centre)	10,245	..	..
Wyong (Shire)	32,967	34,770	36,770
Cessnock-Bellbird (urban centre)	16,160	(Incl. in Newcastle Statistical District)	..
Greater Cessnock (City)(c)	34,321	34,370	34,460
Coffs Harbour (urban centre)	10,088	..	..
Coffs Harbour (Shire)	18,633	19,530	20,480
Dubbo (Municipality)(d)	17,810	18,190	18,430
Gosford-Woy Woy (urban centre)	38,205	..	..
Gosford (Shire)	56,373	58,970	61,970
Goulburn (City)	21,606	21,740	21,810
Grafton (City)	16,387	16,460	16,560
Griffith (urban centre)	11,031	..	..
Wade (Shire)	18,813	18,980	19,130
Katoomba-Wentworth Falls (urban centre)	11,620	..	..
Blue Mountains (City)(e)	18,438	18,790	19,390
Kurri Kurri-Weston (urban centre)	11,613	(Incl. in Newcastle Statistical District)	..
Greater Cessnock (City) . . . . .	..	See under Cessnock-Bellbird, above	..
Lismore (City)	20,904	21,100	21,300
Lithgow (urban centre)	13,146	..	..
Lithgow (City)	12,825	12,800	12,800
Maitland (urban centre)	24,537	(Incl. in Newcastle Statistical District)	..
Maitland (City)	31,051	31,650	32,250

For footnotes, see end of table.

URBAN POPULATION CENTRES EXCEEDING 10,000 POPULATION
30 JUNE 1971 TO 1973—*continued*

Area	Population at 30 June—		
	1971(a)	1972	1973
Newcastle (urban centre)	250,346	(Incl. in Newcastle Statistical District)	
Newcastle (City)	146,009	146,310	146,460
Lake Macquarie (Shire)	122,421	124,220	126,220
Nowra-Bomaderry (urban centre)	12,873	..	..
Shoalhaven (Shire)	28,570	29,920	31,320
Orange (urban centre)	24,185	..	..
Orange (City)	23,172	23,520	24,020
Queanbeyan (N.S.W. portion of Canberra urban centre)	15,434	..	..
Queanbeyan (City)(d)	16,058	16,960	17,810
Richmond-Windsor (urban centre)	11,389	(Incl. in Sydney Statistical Division)	
Windsor (Municipality)	15,485	15,890	16,390
Sydney (urban centre)	2,725,064	(Incl. in Sydney Statistical Division)	
Tamworth (urban centre)	24,665	..	..
Tamworth (City)	24,092	24,440	24,790
Taree (urban centre)	11,943	..	..
Taree (Municipality)	11,493	11,650	11,810
The Entrance (urban centre)(f)	13,728	..	..
Wyong (Shire) . . . . .	..	See under Budgewoi Lake, above	
Wagga Wagga (urban centre)	27,719	..	..
Wagga Wagga (City)	28,905	29,510	30,310
Wollongong (urban centre)	186,136	(Incl. in Wollongong Statistical District)	
Wollongong (City)	161,143	163,540	165,240
Shellharbour (Municipality)	31,154	32,360	33,460
Victoria—			
Ballarat (urban centre)	58,620	..	..
Ballarat (City) and Sebastopol (Borough)	45,046	44,640	44,360
Ballarat (Shire)	14,405	15,050	15,550
Bendigo (urban centre)	45,936	..	..
Bendigo (City) and Eaglehawk (Borough)	37,390	37,620	37,780
Marong and Strathfieldsaye (Shires)	14,616	14,880	15,320
Colac (urban centre)	10,362	..	..
Colac (City)	9,679	9,730	9,740
Geelong (urban centre)	115,181	(Incl. in Geelong Statistical District)	
Geelong, Geelong West and Newtown (Cities)	46,705	46,610	46,230
Bellarine, Corio and South Barwon (Shires)(g)	74,666	77,220	79,440
Horsham (City)	11,045	11,040	11,100
Melbourne (urban centre)	2,394,117	(Incl. in Melbourne Statistical Division)	
Mildura (City)(d)	13,198	14,240	14,280
Moe-Yallourn (urban centre)(h)	20,863	..	..
Moe (City) and Yallourn Works Area(d)	18,826	18,600	18,370
Morwell (urban centre)	16,853	..	..
Morwell (Shire)(d)	22,443	22,540	22,640
Sale (City)	10,436	10,640	10,870
Shepparton (City)	19,410	19,780	20,170
Traralgon (City)	14,666	14,750	14,870
Wangaratta (City)	15,586	15,620	15,670
Warnambool (City)	18,684	19,010	19,220
Werribee (urban centre)	12,872	(Incl. in Melbourne Statistical Division)	
Wodonga (urban centre)(b)	10,528	..	..
Wodonga (Rural City)(d)	13,074	13,150	13,430
Queensland—			
Brisbane (urban centre)	818,423	(Incl. in Brisbane Statistical Division)	
Bundaberg (urban centre)	26,516	..	..
Bundaberg (City)	27,324	27,650	28,000
Cairns (urban centre)	32,747	..	..
Cairns (City)	30,226	31,250	32,750
Gladstone (urban centre)	15,574	..	..
Gladstone (Town)	15,166	15,750	16,300

For footnotes see end of table

URBAN POPULATION CENTRES EXCEEDING 10,000 POPULATION
30 JUNE 1971 TO 1973—*continued*

Area	Population at 30 June—		
	1971(a)	1972	1973
Gold Coast (urban centre)(i)	69,120	..	..
Gold Coast (City)	66,697	71,400	74,500
Gympie (City)	11,096	11,150	11,000
Mackay (urban centre)	28,554	..	..
Mackay (City)	19,148	19,250	19,600
Pioneer (Shire)	22,561	23,500	24,500
Maryborough (urban centre)	19,916	..	..
Maryborough (City)	19,257	19,150	19,050
Mount Isa (urban centre)	25,497	..	..
Mount Isa (City)	26,502	29,000	31,800
Rockhampton (urban centre)	48,213	..	..
Rockhampton (City)	49,164	49,800	50,300
Toowoomba (urban centre)	57,578	..	..
Toowoomba (City)	59,524	60,300	61,000
Townsville (urban centre)	68,591	..	..
Townsville (City)	71,265	73,500	76,500
South Australia—			
Adelaide (urban centre)	809,482	(Incl. in Adelaide Statistical Division)	
Mount Gambier (urban centre)	17,934	..	..
Mount Gambier (City)	17,386	17,350	17,350
Port Augusta (City)(d)	12,224	12,650	12,850
Port Pirie (urban centre)	15,456	..	..
Port Pirie (City)	13,227	12,900	12,750
Whyalla (urban centre)	32,109	..	..
Whyalla (City)(d)	31,570	32,500	33,250
Western Australia—			
Albany (urban centre)	13,101	..	..
Albany (Town)	12,482	12,600	12,400
Bunbury (Town)	17,779	18,750	18,600
Geraldton (urban centre)	15,457	..	..
Geraldton (Town)	15,118	15,550	15,550
Kalgoorlie-Boulder (urban centre)	20,865	..	..
Kalgoorlie (Town)(d)	9,201	9,300	9,800
Boulder (Shire)(d)	12,922	13,100	11,900
Kwinana-New Town (urban centre)	10,108	(Incl. in Perth Statistical Division)	
Rockingham (urban centre)	12,029	(Incl. in Perth Statistical Division)	
Kwinana and Rockingham (Shires)(j)	23,832	25,300	25,500
Perth (urban centre)	641,800	(Incl. in Perth Statistical Division)	
Tasmania—			
Burnie-Somerset (urban centre)	20,087	20,380	20,460
Devonport (urban centre)	18,183	18,630	19,230
Hobart (urban centre) (Incl. in Hobart Statistical Division)	129,928	130,980	133,080
Launceston (urban centre)	62,241	62,250	62,730
Northern Territory—			
Alice Springs (Town)	11,179	11,940	(k)12,762
Darwin (urban centre)	35,516	..	..
Greater Darwin	37,060	39,851	(k)42,858
Australian Capital Territory—			
Canberra (urban centre)	(l)140,864	(Incl. in Canberra Statistical District)	
Canberra (City District)	141,795	155,050	(k)166,101

(a) Population at census date. (b) Parts of the Albury-Wodonga urban centre in New South Wales and Victoria respectively. (c) Excluding that part of Greater Cessnock which lies outside the Newcastle Statistical District and which had a population of 586 at the Census of 30 June 1971. (d) Change in status has occurred between 1 July 1971 and 30 June 1973. (e) Excluding that part of Blue Mountains which lies inside Sydney Statistical Division. (f) Part of The Entrance urban centre (299 persons at 30 June 1971) extends into Gosford Shire. (g) Excluding those parts of Bellarine, Corio and South Barwon Shires which lie outside the Geelong Statistical District and which had a total population of 12,500 at 30 June 1973. (h) Parts of Moe-Yallourn urban centre (2,037 persons at 30 June 1971) lie within Narracan and Morwell Shires. (i) That part of Gold Coast urban centre in Queensland. The total population of Gold Coast urban centre was 74,240 at 30 June 1971. (j) Because Rockingham urban centre lies partly inside Kwinana Shire the combined figure is given for the Kwinana and Rockingham Shires. (k) Result of population count. (l) Excluding that part of Canberra urban centre in New South Wales. The total population of Canberra urban centre at 30 June 1971 was 156,298.

Principal cities of the world

The following table shows the population of the world's largest cities at the latest available date. The data refer to urban agglomerations, where available; in other cases the so-called city proper. The urban agglomeration is defined on page 31 of the United Nations *Demographic Yearbook 1972*, from which most of the figures in the table have been taken, as including also the suburban fringe or thickly settled territory lying outside of, but adjacent to, the city boundaries. (See also the Technical Notes on Statistical Tables and footnotes to the table in the *Demographic Yearbook*). International comparability is limited by different methods used in constructing the estimates, variations in national concepts of urban boundaries, and the different dates to which the statistics refer.

POPULATION OF THE WORLD'S LARGEST CITIES

City	Country	Year	Population	City	Country	Year	Population
			('000)				('000)
New York . . .	U.S.A. . .	1970	11,572	Washington . . .	U.S.A. . .	1970	2,861
Tokyo . . .	Japan . . .	1971	11,513	Bogota . . .	Columbia . . .	1972	2,818
Shanghai . . .	China . . .	1970	(a)10,820	Rome . . .	Italy . . .	1971	2,800
Mexico City(b) . . .	Mexico . . .	1970	8,590	Boston . . .	U.S.A. . .	1970	2,754
Buenos Aires . . .	Argentina . . .	1970	8,353	Montreal . . .	Canada . . .	1971	2,743
Paris . . .	France . . .	1968	8,197	Santiago . . .	Chile . . .	1970	2,662
Peking . . .	China . . .	1970	(a)7,570	Toronto . . .	Canada . . .	1971	2,628
Moscow . . .	U.S.S.R. . .	1972	7,300	Melbourne . . .	Australia . . .	1973	(c)2,584
London . . .	England . . .	1973	7,281	Lima . . .	Peru . . .	1970	2,541
Los Angeles . . .	U.S.A. . .	1970	7,032	Shenyang . . .	China . . .	1957	(a)2,411
Calcutta . . .	India . . .	1971	7,031	Pittsburgh . . .	U.S.A. . .	1970	2,401
Chicago . . .	U.S.A. . .	1970	6,979	Manchester . . .	England . . .	1973	2,389
Bombay . . .	India . . .	1971	(a)5,971	St Louis . . .	U.S.A. . .	1970	2,363
Seoul . . .	Korea . . .	1970	(a)5,536	Birmingham . . .	England . . .	1973	2,359
Sao Paulo . . .	Brazil . . .	1970	(a)5,187	Yokohama . . .	Japan . . .	1971	2,342
Cairo . . .	U.A.R. . .	1970	(a)4,961	Caracas . . .	Venezuela . . .	1970	2,175
Philadelphia . . .	U.S.A. . .	1970	4,818	Wuhan . . .	China . . .	1957	(a)2,146
Djakarta . . .	Indonesia . . .	1971	(a)4,576	West Berlin(d) . . .	Germany . . .	1970	(a)2,122
Tientsin . . .	China . . .	1970	(a)4,280	Chungking . . .	China . . .	1957	(a)2,121
Rio de Janeiro . . .	Brazil . . .	1970	(a)4,252	Singapore . . .	Singapore . . .	1970	2,075
Detroit . . .	U.S.A. . .	1970	4,200	Lahore . . .	Pakistan . . .	1972	2,073
Leningrad . . .	U.S.S.R. . .	1972	4,066	Baltimore . . .	U.S.A. . .	1970	2,071
Karachi . . .	Pakistan . . .	1972	3,650	Cleveland . . .	U.S.A. . .	1970	2,064
Delhi . . .	India . . .	1971	3,647	Nagoya . . .	Japan . . .	1972	2,052
Teheran . . .	Iran . . .	1971	(a)3,639	Istanbul . . .	Turkey . . .	1970	2,043
Madras . . .	India . . .	1971	3,170	Alexandria . . .	U.A.R. . .	1970	(a)2,032
Madrid . . .	Spain . . .	1970	3,146	Budapest . . .	Hungary . . .	1971	2,027
San Francisco . . .	U.S.A. . .	1970	3,110	Houston . . .	U.S.A. . .	1970	1,985
Osaka . . .	Japan . . .	1971	2,939	Vereniging . . .	South Africa . . .	1970	1,970
Sydney . . .	Australia . . .	1973	(c)2,874	Pusan . . .	Korea . . .	1970	1,881

(a) City proper. (b) On 29 December 1972, the boundary of Mexico City was considerably enlarged by presidential decree. (c) Statistical Division. (d) East Berlin, 1971, population of city proper, 1,086,374.

Sex distribution of the population

The number of males to each hundred females has been adopted as a measure of the 'masculinity' of the population. With the exception of some dislocation arising from the two World Wars, there was a continuous diminution of the masculinity of the population until 1945. This resulted mainly from a decline in the proportion of overseas-born in the population and in their masculinity. At the census of 1901 the overseas-born comprised 23 per cent of the population and had a masculinity of 151 per cent. By 1947 these proportions had declined to 10 per cent and 127 per cent, with a consequent decline in the masculinity of the total population. Although the proportion of overseas-born has increased since 1947, with the resumption of immigration, its masculinity has declined and there has thus been little change in the masculinity of the total population.

POPULATION(a): MASCULINITY, DECEMBER 1945 TO 1973
(Number of males per 100 females)

31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1945 . . .	99.75	97.50	105.45	98.21	105.49	101.15	220.16	115.86	100.36
1950 . . .	100.88	99.27	106.02	101.83	106.07	102.70	188.05	123.33	101.83
1955 . . .	101.27	101.38	105.17	102.78	105.87	103.63	163.88	107.77	102.52
1960 . . .	101.38	101.35	104.16	102.24	103.99	102.88	147.82	111.51	102.22
1965 . . .	100.68	100.52	102.99	101.03	103.99	101.83	123.36	108.70	101.43
1969 . . .	100.55	100.00	102.05	100.00	105.07	101.34	128.06	105.12	101.13
1970 . . .	100.50	99.87	101.83	99.74	105.32	101.28	128.41	104.64	101.05
1971 . . .	100.39	99.75	101.70	99.64	105.22	101.06	125.80	104.67	100.94
1972 . . .	100.27	99.71	101.52	99.28	104.62	100.70	120.51	104.86	100.75
1973 . . .	100.13	99.61	101.48	99.22	104.58	100.30	118.39	104.78	100.65

(a) Excludes full-blood Aborigines before 1961.

The masculinity of the population in certain countries of the world is shown in the table on page 155.

Age distribution of the population

The next table shows the changes which have taken place in the age distribution of the population of Australia at each census since 1871.

POPULATION: PROPORTIONAL AGE DISTRIBUTION, AUSTRALIA 1871 TO 1971
(Per cent)

Census	Males			Total	Females			Total	Persons			Total
	Under 15 years	15 years and under 65	65 years and over		Under 15 years	15 years and under 65	65 years and over		Under 15 years	15 years and under 65	65 years and over	
1871 . . .	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881 . . .	36.43	60.78	2.79	100	41.91	56.04	2.04	100	38.95	58.60	2.44	100
1891 . . .	34.82	61.96	3.22	100	39.40	58.03	2.57	100	36.94	60.14	2.92	100
1901 . . .	33.89	61.78	4.33	100	36.52	59.82	3.66	100	35.14	60.85	4.01	100
1911 . . .	30.89	64.74	4.37	100	32.49	63.27	4.24	100	31.66	64.03	4.31	100
1921 . . .	31.67	63.86	4.46	100	31.80	63.83	4.37	100	31.73	63.85	4.42	100
1933 . . .	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100
1947 . . .	25.48	67.08	7.43	100	24.62	66.71	8.67	100	25.06	66.90	8.05	100
1954 . . .	28.81	63.82	7.37	100	28.23	62.52	9.25	100	28.52	63.17	8.30	100
1961 . . .	30.61	62.16	7.23	100	29.85	60.34	9.82	100	30.23	61.26	8.51	100
1966(a) . . .	29.93	62.98	7.09	100	28.92	61.10	9.99	100	29.43	62.05	8.53	100
1971(a) . . .	29.32	63.71	6.97	100	28.21	62.04	9.75	100	28.77	62.88	8.35	100

(a) Includes full-blood Aborigines.

Estimates of the age distribution of population, based on the census distribution of ages and records of births, ages at death, and ages of migrants, are made for intercensal years. The following estimated age distribution of the Australian population at 30 June 1973 will be subject to revision when the 1976 Census results for distribution of ages become available.

POPULATION: ESTIMATED AGE DISTRIBUTION(a)
AUSTRALIA, 30 JUNE 1973

Age last birthday (years)	30 June 1973		
	Males	Females	Persons
0-4	652,186	625,094	1,277,280
5-9	611,754	581,156	1,192,910
10-14	645,455	613,291	1,258,746
15-19	593,634	566,839	1,160,473
20-24	566,525	543,170	1,109,695
25-29	538,531	511,315	1,049,846
30-34	434,125	409,045	843,170
35-39	385,699	367,331	753,030
40-44	393,729	369,146	762,875
45-49	399,832	380,454	780,286
50-54	357,498	352,047	709,545
55-59	298,164	306,096	604,260
60-64	256,080	270,335	526,415
65-69	191,694	216,408	408,102
70-74	130,885	172,094	302,979
75-79	74,757	124,958	199,715
80-84	42,362	79,464	121,826
85 and over	21,572	48,874	70,446
Total	6,594,482	6,537,117	13,131,599

(a) Based on the age distribution of all persons enumerated at the Census of 30 June 1971 adjusted for mis-statement of age and on subsequent births, recorded ages at death and recorded ages of migrants.

General characteristics of the population, Censuses 1966 and 1971

Particulars of the characteristics of the population of Australia at the 1971 Census compared with the 1966 Census are shown in this section. Information from the 1971 Census for individual States and Territories is available in *Bulletin No. 1 Summary of Population*, Parts 1-9. Information concerning the industry, occupational status, and occupations of the population as recorded at the 1971 Census is given in the chapter Employment and Unemployment, and on dwellings in the chapter Housing and Building.

The characteristics dealt with in the following pages are: age; marital status; country of birth; period of residence in Australia of overseas born; nationality; religion. Further details are available in a series of bulletins which were published by the Bureau (for details see list of printed publications at the end of this Year Book). All tables include particulars of full-blood Aborigines.

POPULATION: AGE (GROUPED AGES)(a), BY SEX, AUSTRALIA, CENSUSES, 1966 AND 1971

Age last birthday (years)	Census, 30 June 1966			Census, 30 June 1971			Increase 1966-1971
	Males	Females	Persons	Males	Females	Persons	
0-4	589,956	561,098	1,151,054	626,002	597,440	1,223,442	72,388
5-9	599,117	570,833	1,169,950	625,955	594,300	1,220,255	50,305
10-14	559,137	533,071	1,092,208	628,600	597,755	1,226,355	134,147
15-19	539,052	513,487	1,052,539	567,960	542,236	1,110,196	57,657
20-24	438,623	418,936	857,559	558,166	538,779	1,096,945	239,386
25-29	385,961	363,318	749,279	480,748	452,779	933,527	184,248
30-34	357,216	333,285	690,501	412,476	388,657	801,133	110,632
35-39	398,828	368,452	767,280	380,948	358,888	739,836	-27,444
40-44	397,822	378,404	776,226	407,539	379,976	787,515	11,289
45-49	344,171	335,581	679,752	399,611	381,913	781,524	101,772
50-54	324,659	318,574	643,233	332,641	330,295	662,936	19,703
55-59	276,763	267,508	544,271	301,464	303,971	605,435	61,164
60-64	216,203	220,377	436,580	243,740	257,804	501,544	64,964
65-69	162,119	195,578	357,697	183,270	203,493	386,763	29,066
70-74	115,582	161,212	276,794	123,915	168,735	292,650	15,856
75-79	79,813	116,902	196,715	76,080	123,687	199,767	3,052
80-84	38,654	64,352	103,006	42,926	76,940	119,866	16,860
85 and over	17,912	36,942	54,854	20,670	45,279	65,949	11,095
Total	5,841,588	5,757,910	11,599,498	6,412,711	6,342,927	12,755,638	1,156,140

(a) Recorded ages adjusted by the distribution of ages 'not stated'.
Minus sign (-) denotes decrease.

POPULATION: MARITAL STATUS, BY SEX, AUSTRALIA, CENSUSES, 1966 AND 1971

Marital status	Census, 30 June 1966			Census, 30 June 1971			Increase 1966-1971
	Males	Females	Persons	Males	Females	Persons	
Never married—							
Under 15 years of age	1,747,696	1,664,529	3,412,225	1,880,557	1,789,495	3,670,052	257,827
15 years of age and over	1,252,635	902,854	2,155,489	1,327,684	943,824	2,271,508	116,019
Total never married	3,000,331	2,567,383	5,567,714	3,208,241	2,733,319	5,941,560	373,846
Married	2,600,044	2,587,196	5,187,240	2,926,865	2,924,004	5,850,869	663,629
Married but permanently separated(a)	75,438	87,536	162,974	86,337	97,052	183,389	20,415
Divorced	42,908	51,174	94,082	61,749	71,421	133,170	39,088
Widowed	122,867	464,621	587,488	129,519	517,131	646,650	59,162
Grand total	5,841,588	5,757,910	11,599,498	6,412,711	6,342,927	12,755,638	1,156,140

(a) Legally or otherwise.

POPULATION: COUNTRY OF BIRTH, BY SEX, AUSTRALIA, CENSUSES, 1966 AND 1971

Country of birth	Census, 30 June 1966			Census, 30 June 1971			Increase 1966-1971
	Males	Females	Persons	Males	Females	Persons	
Australia	4,688,441	4,780,137	9,468,578	5,037,098	5,139,222	10,176,320	707,742
New Zealand	26,174	26,311	52,485	41,350	39,116	80,466	27,981
Europe—							
United Kingdom and Republic of Ireland(a)	474,427	434,237	908,664	562,869	525,341	1,088,210	179,546
Germany	55,799	52,910	108,709	56,196	54,615	110,811	2,102
Greece	73,936	66,153	140,089	83,483	76,717	160,200	20,111
Italy	150,138	117,187	267,325	159,492	129,984	289,476	22,151
Malta	31,028	24,076	55,104	29,546	24,135	53,681	-1,423
Netherlands	55,189	44,360	99,549	54,846	44,449	99,295	-254
Poland	36,496	25,145	61,641	34,753	24,947	59,700	-1,941
Other	147,921	104,509	252,430	189,836	145,269	335,105	82,675
Total Europe	1,024,934	868,577	1,893,511	1,171,021	1,025,457	2,196,478	302,967
Other countries	102,039	82,885	184,924	163,242	139,132	302,374	117,450
Total born outside Australia	1,153,147	977,773	2,130,920	1,375,613	1,203,705	2,579,318	448,398
Grand total	5,841,588	5,757,910	11,599,498	6,412,711	6,342,927	12,755,638	1,156,140

(a) Includes Ireland (undefined).
Minus sign (-) denotes decrease.

POPULATION: OVERSEAS-BORN, BY PERIOD OF RESIDENCE IN AUSTRALIA, AND SEX
CENSUSES, 1966 AND 1971

Period of residence (years)	Census, 30 June 1966			Census, 30 June 1971			Increase 1966-1971
	Males	Females	Persons	Males	Females	Persons	
Under 1	88,608	73,252	161,860	99,894	85,483	185,377	23,517
1 and under 2	65,980	58,361	124,341	87,636	77,963	165,599	41,258
2 " " 3	58,366	51,963	110,329	74,971	66,648	141,619	31,290
3 " " 4	46,104	41,934	88,038	54,663	48,706	103,369	15,331
4 " " 5	35,623	37,279	72,902	52,630	47,311	99,941	27,039
5 years and over	833,170	693,902	1,527,072	919,986	794,788	1,714,774	187,702
Not stated	25,296	21,082	46,378	85,833	82,806	168,639	122,261
Total	1,153,147	977,773	2,130,920	1,375,613	1,203,705	2,579,318	448,398

POPULATION: NATIONALITY (i.e. ALLEGIANCE), BY SEX
AUSTRALIA, CENSUSES, 1966 AND 1971

Nationality	Census, 30 June 1966			Census, 30 June 1971			Increase 1966-1971
	Males	Females	Persons	Males	Females	Persons	
British(a)—							
Born in Australia	4,688,441	4,780,137	9,468,578	5,037,098	5,139,222	10,176,320	707,742
Born outside Australia	871,263	748,582	1,619,845	987,007	869,959	1,856,966	237,121
Total British	5,559,704	5,528,719	11,088,423	6,024,105	6,009,181	12,033,286	944,863
Foreign—							
Dutch	25,941	22,014	47,955	19,710	17,081	36,791	-11,164
German	24,262	18,559	42,821	19,066	15,196	34,262	-8,559
Greek	53,344	53,333	106,677	53,828	53,766	107,594	917
Irish	6,856	4,788	11,644	9,021	7,042	16,063	4,419
Italian	81,632	71,781	153,413	81,137	72,183	153,320	-93
Polish	7,784	5,998	13,782	4,106	3,442	7,548	-6,234
U.S. American	8,777	6,106	14,883	14,919	11,543	26,462	11,579
Yugoslav	24,024	14,229	38,253	39,095	30,619	69,714	31,461
Other (incl. Stateless)	49,264	32,383	81,647	147,724	122,874	270,598	188,951
Total foreign	281,884	229,191	511,075	388,606	333,746	722,352	211,277
Grand total	5,841,588	5,757,910	11,599,498	6,412,711	6,342,927	12,755,638	1,156,140

(a) All persons of individual citizenship status who, by virtue of the *Citizenship Act* 1948-1969, are deemed to be British subjects. Includes naturalised British. For the purposes of this table Irish nationality is included with British. Minus sign (-) denotes decrease.

POPULATION: RELIGIOUS DENOMINATION, BY SEX, AUSTRALIA
CENSUSES, 1966 AND 1971

Religious denomination	Census, 30 June 1966			Census, 30 June 1971			Increase 1966-1971
	Males	Females	Persons	Males	Females	Persons	
Christian—							
Baptist	78,443	87,779	166,222	82,479	93,490	175,969	9,747
Brethren	7,491	8,180	15,671	10,900	12,063	22,963	7,292
Catholic, Roman and Catholic undefined	1,532,930	1,509,577	3,042,507	1,718,674	1,723,960	3,442,634	400,127
Churches of Christ	48,566	54,694	103,260	44,714	52,709	97,423	-5,837
Church of England	1,933,567	1,951,451	3,885,018	1,941,897	2,011,307	3,953,204	68,186
Congregational	35,933	40,689	76,622	31,289	36,870	68,159	-8,463
Greek and other Orthodox	135,623	119,877	255,500	177,324	161,308	338,632	83,132
Jehovah's Witness	n.a.	n.a.	n.a.	16,031	19,721	35,752	n.a.
Lutheran	91,279	88,554	179,833	98,316	98,531	196,847	17,014
Methodist	549,751	577,209	1,126,960	527,724	571,295	1,099,019	-27,941
Presbyterian	513,019	532,545	1,045,564	497,793	530,788	1,028,581	-16,983
Salvation Army	27,188	29,497	56,685	30,823	35,008	65,831	9,146
Seventh-day Adventist	17,175	20,877	38,052	18,680	22,937	41,617	3,565
Protestant (undefined)	53,028	52,346	105,374	118,449	124,753	243,202	137,828
Other (incl. Christian undefined)	64,663	68,481	133,144	89,254	91,292	180,546	n.a.
Total Christian	5,088,656	5,141,756	10,230,412	5,404,347	5,586,032	10,990,379	759,967
Non-Christian—							
Hebrew	31,303	31,972	63,275	30,619	31,589	62,208	-1,067
Muslim	n.a.	n.a.	n.a.	13,600	8,711	22,311	n.a.
Other	8,804	4,843	13,647	8,434	5,970	14,404	n.a.
Total non-Christian	40,107	36,815	76,922	52,653	46,270	98,923	22,001
Indefinite	19,905	16,645	36,550	16,755	12,658	29,413	-7,137
No religion	61,623	34,517	96,140	517,360	338,316	855,676	759,536
No reply	631,297	528,177	1,159,474	421,596	359,651	781,247	-378,227
Grand total	5,841,588	5,757,910	11,599,498	6,412,711	6,342,927	12,755,638	1,156,140

Minus sign (-) denotes decrease.

The Aboriginal population of Australia

In Year Book No. 17, pages 951-61, a brief account was given of the Australian Aboriginal population, its origin, its numbers as estimated from time to time and the steps taken for its protection. On pages 914-16 of Year Book No. 22 particulars were shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687-96 of Year Book No. 23.

Aborigines have been enumerated in all censuses of the Commonwealth, but the degree of coverage and information obtained has varied substantially since 1911. Since the census taken in 1933 the adequacy of the particulars obtained has improved progressively as a result of an increasing number of Aborigines coming into contact with more populated areas.

At the 1966 Census extensive arrangements were made to obtain as full a coverage of Aborigines as possible and to enumerate fully those Aborigines 'out of contact'. Throughout Australia the assistance of Aboriginal welfare bodies, mission superintendents, station owners, patrol officers, and police was sought in an effort to include all Aborigines and to obtain complete information about them, e.g. in the Northern Territory information was obtained from missions and settlements concerning Aborigines normally resident at such locations but who were absent at the time of the census, and of Aborigines resident at such locations but who normally resided elsewhere. The two sets of information were then reconciled to produce what is considered to be a fairly complete and accurate coverage of Aborigines in the Territory.

Selected characteristics

For details of certain selected characteristics derived from the 1966 Census see Year Book No. 56, pages 138-42. Details of all characteristics enumerated, together with details for States and Territories, and comparisons between the Aboriginal population and the total population, may be found in the publication *The Aboriginal Population of Australia* (Reference No. 2.23).

At censuses prior to the 1966 Census, the instructions relating to race were insufficient to enable respondents to classify themselves according to degree of race mixture. For example, from 1933 to 1961 persons were asked to state:

'For persons of European Race, wherever born, write "European". For non-Europeans state the race to which they belong, for example, "Aboriginal", "Chinese", "Negro", "Afghan", etc. If the person is half-caste with one parent of European race, write also "H.C.", for example, "H.C. Aboriginal", "H.C. Chinese", etc.'

At the 1966 Census the instructions were redesigned as follows in an endeavour to obtain precise data on race mixture and also to avoid the opprobrium attaching to the term 'half-caste':

'State each person's race. For persons of European race wherever born, write "European". Otherwise state whether Aboriginal, Chinese, Indian, Japanese, etc., as the case may be. If of more than one race give particulars, for example, $\frac{1}{2}$ European— $\frac{1}{2}$ Aboriginal, $\frac{3}{4}$ Aboriginal— $\frac{1}{4}$ Chinese, $\frac{1}{2}$ European— $\frac{1}{2}$ Chinese.'

Investigations made by matching the replies of individuals at the 1961 and 1966 Censuses and by comparing overall census results with data available from the State instrumentalities responsible for Aboriginal welfare suggest that considerable doubt attaches to the validity of the replies given to the question on race at the 1966 and previous censuses.

It was concluded:

- (a) that reporting by Aborigines in the 1966 Census was insufficiently precise to differentiate persons who are 50 per cent Aboriginal from those who are more than 50 per cent Aboriginal;
- (b) that similar dissections obtained at censuses prior to the 1966 Census were similarly imprecise; and
- (c) that even a total of all persons who are 50 per cent or more Aboriginal may be suspect, primarily because of the inclusion of persons who are less than 50 per cent Aboriginal and described themselves simply as 'Aboriginal', but also because of persons who are 50 per cent Aboriginal stating their race as 'European'.

Nevertheless, the statistics herein, which relate to persons who have described themselves as 50 per cent or more Aboriginal or simply as 'Aboriginal', are presented subject to these limitations.

The following table shows particulars of the Aboriginal population of Australia at the Censuses of 30 June, 1954, 1961, and 1966. Because of some doubt about the accuracy of separate figures for full-blood and half-blood Aborigines as shown in previous issues of the Year Book, their separate

publication has been discontinued. Torres Strait Islanders are not included in this table, but are included in the census figures shown elsewhere in this chapter. At the 1966 Census they numbered 5,403 persons.

ABORIGINAL POPULATION(a): CENSUSES, 1954, 1961 AND 1966

State or Territory	Census, 1954(a)			Census, 1961(a)			Census, 1966(b)		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
New South Wales	6,278	5,935	12,213	7,494	7,222	14,716	7,343	6,876	14,219
Victoria	691	704	1,395	899	897	1,796	856	934	1,790
Queensland	8,368	7,781	16,149	10,146	9,550	19,696	9,644	9,359	19,003
South Australia	1,675	1,537	3,212	2,607	2,277	4,884	2,914	2,591	5,505
Western Australia	6,564	6,135	12,699	8,351	7,925	16,276	9,505	8,934	18,439
Northern Territory	5,990	5,798	11,788	9,013	8,747	17,760	10,651	10,468	21,119
Australia(c)	29,716	28,006	57,722	38,612	36,697	75,309	40,984	39,223	80,207

(a) Prior to the 1966 Census, Aborigines 'out of contact' were not enumerated and estimates of these were made by authorities responsible for native welfare. It is estimated that at the 1954 Census 12,956 Aborigines (of which 2,311 were estimated to be in Queensland, 1,760 in South Australia, 3,516 in Western Australia and 5,369 in the Northern Territory) were not contacted by census collectors and were not included in the Census. Increasing numbers, however, were coming into contact and at the 1961 Census it is estimated that 2,000 Aborigines in Western Australia and 1,944 in the Northern Territory were not contacted by census collectors. At the 1966 Census, efforts were made to obtain complete coverage. (b) The figures relate to those persons who described themselves in the 1966 Census as being 50 per cent or more Aboriginal or simply as 'Aboriginal'. For reasons stated above, it has not been possible to differentiate between persons who are 50 per cent Aboriginal from those who are more than 50 per cent Aboriginal. (c) Includes Tasmania and the Australian Capital Territory.

1971 Census of Population and Housing

In view of the limitations on the statistics described above, an attempt was made for the 1971 Census to design a question which would obtain more meaningful data on the Aboriginal population. The advice of expert bodies approached was that such data would be obtained by asking each respondent to indicate the race to which he considered himself to belong.

In addition the repeal of Section 127 of the Constitution in 1967 removed the need for the question on racial origin to identify 'Aboriginal natives'. ('Aboriginal natives', the term used in the Constitution, was interpreted as those persons possessing more than 50 per cent Aboriginal blood).

The question at the 1971 Census read:

What is this person's racial origin?

(If of mixed origin indicate the one to which he considers himself to belong)

(Tick one box only or give one origin only)

- European origin
- Aboriginal origin
- Torres Strait Islander origin
- Other origin (give one only).....

The following table shows particulars of the Aboriginal population of Australia at the Census of 30 June 1971. The statistics for Aborigines are not on a comparable basis with those from previous Censuses (see above).

ABORIGINAL POPULATION: SECTION OF STATE, BY SEX, CENSUS 30 JUNE 1971

State or Territory	Major Urban(a)			Other Urban(a)			Rural(a)			Migratory(a)			Total		
	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons
New South Wales	2,967	2,988	5,955	4,636	4,644	9,280	4,066	3,786	7,852	13	1	14	11,682	11,419	23,101
Victoria	1,487	1,412	2,899	883	952	1,835	479	437	916	6	..	6	2,855	2,801	5,656
Queensland	1,251	1,354	2,605	3,482	3,710	7,192	7,569	7,041	14,610	4	3	7	12,306	12,108	24,414
South Australia	834	887	1,721	747	765	1,512	2,116	1,791	3,907	..	..	..	3,697	3,443	7,140
Western Australia	1,094	1,137	2,231	3,227	3,287	6,514	6,921	6,223	13,144	8	6	14	11,250	10,653	21,903
Tasmania	96	78	174	133	124	257	78	66	144	..	..	..	307	268	575
Northern Territory	..	..	..	2,029	1,975	4,004	9,656	9,592	19,248	1	..	1	11,686	11,567	23,253
Australian Capital Territory	46	36	82	..	..	..	90	76	166	..	..	..	136	112	248
Australia	7,775	7,892	15,667	15,137	15,457	30,594	30,975	29,012	59,987	32	10	42	53,919	52,371	106,290

(a) For definition of urban, rural, etc., see explanation given on page 140.

Projections of the population

Projections are sometimes distinguished from forecasts on the basis that the former are extrapolations of existing populations assuming the continuance of past trends of births, deaths, and migration. Forecasts may also take into account expectations of trends in other factors such as employment opportunities, government policy or technological advance.

The method chosen for these projections is similar to the method used for the current estimates of the population except that hypothetical figures of births, deaths and net migration are used instead of recorded births, deaths and net migration.

The assumptions employed in the latest set of projections, and summaries of the results, are given below. They cover the years 1974 to 2001, taking 1973 as the base year.

Fertility. Projected age specific fertility rates were based on the 1972 experience, but assuming a 2 per cent decline per annum in the proportions of women having an additional child after the second and each subsequent child.

Mortality. It was assumed that the 1965-67 age specific mortality rates would be constant for the duration of the projection.

Migration. Immigrants are assumed to have the same fertility and mortality experience as the resident Australian population. The following table shows the projected population in the absence of overseas migration and at constant levels of net immigration after 1973 of 20,000, 40,000, 60,000 and 80,000 persons per annum. It is not possible to determine the level of net immigration in advance nor will it necessarily remain constant over the period shown. The alternatives supplied may be used as a guide according to the views of the user as the future migration trend.

PROJECTED POPULATION OF AUSTRALIA: 1973 TO 2000

30 June—	Excluding migration after 30 June 1973	Including net immigration, after 1973, of the following number of persons per annum—			
		20,000	40,000	60,000	80,000
	'000	'000	'000	'000	'000
1973 (actual)	13,132	13,132	13,132	13,132	13,132
1974	13,290	13,310	13,331	13,351	13,371
1975	13,449	13,490	13,531	13,573	13,614
1980	14,231	14,386	14,541	14,696	14,851
1985	14,983	15,265	15,546	15,827	16,109
1990	15,674	16,093	16,551	16,929	17,347
1995	16,309	16,874	17,438	18,003	18,568
2000	16,915	17,635	18,356	19,076	19,797

Population of External Territories

Ordinances of the individual External Territories under the control of Australia provide for a census of the population to be taken on the day prescribed for the taking of a census in the Commonwealth of Australia. The following table shows the population of the Territories of Christmas Island, Cocos (Keeling) Islands and Norfolk Island, Papua and the Trust Territory of New Guinea at the Census of 30 June 1971 and as estimated at 30 June 1973.

POPULATION: EXTERNAL TERRITORIES, 30 JUNE 1971 AND 1973

Territory	Census 30 June 1971		Estimate 30 June 1973	
	Males	Females	Persons	Persons
Christmas Island . . .	1,732	959	2,691	2,884
Cocos (Keeling) Islands . . .	312	306	618	654
Norfolk Island	824	859	1,683	1,846
Papua—				
Indigenous population . . .	345,747	324,874	670,621	644,871
Non-indigenous population	11,680	9,826	21,506	n.a.
<i>Total, Papua</i>	<i>357,427</i>	<i>334,700</i>	<i>692,127</i>	<i>(a)n.a.</i>
Trust Territory of New Guinea—				
Indigenous population . . .	911,283	842,309	1,753,592	1,871,134
Non-indigenous population	19,560	13,462	33,022	n.a.
<i>Total, New Guinea</i> . . .	<i>930,843</i>	<i>855,771</i>	<i>1,786,614</i>	<i>(a)n.a.</i>

(a) The total population for Papua New Guinea was 2,563,310 at 30 June 1973.

Further particulars concerning the populations of the Territories are given in the chapter The Territories of Australia.

International statistics of population

In the following tables the population, density, rate of growth, natural increase and masculinity are shown in respect of all countries which had an estimated population of at least ten million persons in 1971, excepting for the group 'Oceania', which is treated in more detail. The source of these figures for all countries except Australia is the 1972 *Demographic Yearbook*, which is prepared and published by the Statistical Office of the United Nations. The tables include figures varying in reliability and accuracy, there being considerable variation in the quality of demographic statistics between countries, but this information has been shown to provide a guide as to the magnitude and trend of population movements in overseas countries.

Where the information available to the Statistical Office of the United Nations relates to only part of the population of a country, the population characteristic (e.g. rate of growth), or vital statistics rate (e.g. marriages), has been omitted from the tables, and this is indicated by a footnote.

For fuller particulars of the differences in the quality of the statistics and their reliability and for other qualifications, reference should be made to the detailed explanations contained in the *Demographic Yearbook* of the Statistical Office of the United Nations (see particularly Technical Notes on Statistical Tables and footnotes to the tables).

Population, rate of growth and density: world, continents and regions

In preparing the population figures shown below the Population Branch of the United Nations includes revisions made to the estimates from time to time as new data becomes available, for example, from a census. Adjustments for under-enumeration have also been made. Reference should be made to the description contained in the United Nations *Demographic Yearbook*, 1972 (pages 24-5), regarding the scheme of regionalisation.

POPULATION, DENSITY AND RATE OF INCREASE FOR THE WORLD AND CONTINENTS—SELECTED YEARS

(Source: United Nations *Demographic Yearbook*, 1972)

Continent and region	Population						Annual rate of increase 1963-72 (per cent)	Average annual increase 1963-72 (millions)	Density (persons per square kilometre) 1972
	Estimates of mid-year population (millions)								
	1930	1940	1950	1960	1963	1972			
World total	2,070	2,295	2,486	2,982	3,162	3,782	2.0	68.9	28
Africa	164	191	217	270	289	364	2.6	8.3	12
Western Africa	48	58	64	80	85	107	2.5	2.4	17
Eastern Africa	46	54	62	77	82	103	2.5	2.3	16
Northern Africa	39	44	51	65	71	92	3.0	2.3	11
Middle Africa	21	23	25	29	31	38	2.1	0.8	6
Southern Africa	10	12	14	18	19	24	2.4	0.6	9
America	242	274	328	412	441	533	2.1	10.2	13
Northern America	134	144	166	199	208	233	1.3	2.8	11
Latin America	108	130	162	213	232	300	2.9	7.6	15
Tropical South America	55	67	84	112	122	160	3.0	4.2	12
Middle America	22	27	35	48	53	72	3.4	2.1	29
Temperate South America	19	22	27	33	35	41	1.8	0.7	10
Caribbean	12	14	17	21	22	27	2.3	0.6	113
Asia(a)	1,120	1,244	1,355	1,645	1,754	2,154	2.3	44.4	78
East Asia	591	634	657	780	822	962	1.8	15.6	82
Mainland Region	501	533	536	640	675	792	1.8	13.0	71
Japan	64	71	83	93	96	106	1.1	1.1	287
Other East Asia	26	30	38	47	51	64	2.6	1.4	248
South Asia	529	610	698	865	931	1,191	2.8	28.9	75
Middle South Asia	371	422	481	588	632	806	2.7	19.3	119
South East Asia	127	150	173	219	236	304	2.8	7.6	66
South West Asia	31	38	44	58	63	82	2.9	2.1	18
Europe(a)	355	380	392	425	437	469	0.8	3.6	95
Western Europe	108	113	122	135	140	151	0.8	1.2	151
Southern Europe	93	103	109	118	120	131	0.9	1.2	99
Eastern Europe	89	96	89	97	99	106	0.8	0.8	107
Northern Europe	65	68	72	76	78	82	0.6	0.4	50
Oceania	10.0	11.1	12.6	15.8	16.8	20.2	2.1	0.4	2
Australia and New Zealand	8.0	8.7	10.1	12.7	13.5	16.0	1.9	0.3	2
Melanesia	1.6	1.8	1.8	2.2	2.3	2.9	2.5	0.1	6
Polynesia and Micronesia	0.4	0.6	0.7	0.9	1.0	1.3	3.2		44
Union of Soviet Socialist Republics	179	195	180	214	225	248	1.1	2.6	11

(a) Excludes U.S.S.R. shown below.

Population, density, rate of growth, natural increase, and masculinity of selected countries

Certain details of the population of the more populous countries within continental groups are shown in the following table. As explained above, reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1972, regarding geographical units used, boundaries of areas, reliability of estimates, etc.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE AND
MASCULINITY—SELECTED COUNTRIES

(Source: United Nations Demographic Yearbook, 1972)

Country	Population mid-year 1972 (thousands)	Density 1972 (persons per square kilometre)	Annual rate of increase 1963-72 (per cent)	Natural increase		Masculinity at latest census	
				Year	Rate (per thousand popula- tion)	Year	Rate (number of males per 100 females)
Africa—							
Nigeria	58,020	63	2.5	1965-70	24.7	1963	102.0
United Arab Republic, Egypt	34,839	35	2.5	1971	21.5	1966	101.8
Ethiopia	25,933	21	1.9	1965-70	20.6	..	(a)
South Africa	22,987	19	3.2	1965-70	23.7	1970	97.0
Zaire	22,860	10	2.1	1965-70	21.7	1961	85.3
Sudan	16,489	7	2.7	1965-70	30.5	1956	102.2
Morocco	15,825	35	..	1965-70	33.0	1971	(a)
Algeria	15,270	6	3.5	1965-70	32.2	1966	96.9
Tanzania—							
Tanganyika	13,602	14	2.6	1957	21-22	1967	95.0
Zanzibar	394	160	2.0	1970	26.0	1967	102.4
Kenya	12,067	52	3.1	1965-70	30.3	1969	100.4
North America—							
United States of America	208,841	22	1.1	1972	6.2	1970	94.8
Mexico	52,641	27	3.5	1965-70	33.5	1970	99.6
Canada	21,848	2	1.6	1971	9.5	1971	100.2
South America—							
Brazil	98,854	12	2.9	1965-70	28.3	1970	98.9
Argentina	23,923	9	1.5	1968	12.4	1970	98.6
Colombia	22,491	20	3.2	1965-70	34.0	1964	97.1
Peru	14,456	11	3.1	1965-70	30.7	1972	(a)
Venezuela	10,969	12	3.1	1972	30.2	1971	(a)
Asia—							
China	800,720	83	1.8	1965-70	17.8	1953	107.6
India	563,494	172	2.2	1965-70	26.1	1971	107.2
Indonesia	120,400	81	2.1	1965-70	28.9	1971	98.2
Japan	105,994	287	1.1	1971	12.6	1970	96.5
Pakistan	56,065	70	2.4	1965-70	32.5	1972	(a)
Philippines	39,040	130	3.0	1965-70	32.7	1970	99.0
Thailand	36,286	71	3.1	1965-70	32.4	1970	(a)
Turkey in Asia	33,769	45	2.5	1967	25.0	..	(a)
Korea, Republic of	32,527	330	2.1	1965-70	24.6	1970	100.6
Iran	30,550	19	3.0	1965-70	28.8	1966	107.3
Burma(b)	27,584	106	2.2	1965-70	22.9	1941	104.0
Vietnam (North)	22,038	139	2.3	1965-70	21.4	1960	93.4
Vietnam, Republic of(b)	18,332	272	2.6	1965-70	21.4	..	(a)
Afghanistan	17,878	28	2.3	1965-70	24.0	..	(a)
Taiwan(b)	14,035	1,010	2.6	1970	23.0	1966	109.4
Korea (North)	14,680	122	2.8	1965-70	27.6	..	(a)
Sri Lanka	13,033	199	2.3	1971	22.3	1971	105.5
Nepal	11,467	81	1.8	1965-70	21.7	1971	(a)
Europe—							
Germany—							
Federal Republic of (incl. West Berlin)	61,674	248	0.8	1972	-0.4	1970	90.8
Eastern (incl. East Berlin)	17,043	157	-0.1	1972	-2.0	1971	85.5
United Kingdom	55,788	229	0.4	1972	3.0	1971	94.4
Italy	54,345	180	0.7	1972	6.7	1971	95.4
France	51,720	95	0.9	1972	6.3	1968	(a)
Spain	34,494	68	1.1	1972	11.2	1970	95.4
Poland	33,068	106	..	1972	9.4	1970	94.5
Yugoslavia	20,772	81	1.0	1972	9.1	1971	96.5
Romania	20,769	87	1.1	1971	10.1	1966	95.9
Czechoslovakia	14,481	113	..	1971	5.0	1970	95.0
Netherlands	13,330	326	1.2	1972	7.6	1960	99.2
Hungary	10,398	112	0.4	1972	3.3	1970	94.0
Oceania—							
Australia	12,959	2	1.9	1972	12.0	1971	101.2
New Zealand	2,905	11	1.5	1971	14.1	1971	99.9
Papua New Guinea	2,581	6	2.5	1965-70	23.8	1971	108.2
U.S.S.R.—							
Union of Soviet Socialist Republics	247,459	11	1.1	1972	6.6	1970	85.5

(a) Not available or information relates to a segment of a population only. (b) Population and density are shown for mid-year 1970, annual rate of increase relates to 1963-70.

Overseas arrivals and departures

This section contains summary statistics of total overseas arrivals and departures and detailed statistics of permanent movement. For information on passengers in other categories, see Chapter 12, Transport and Communication.

More detailed statistics of overseas arrivals and departures, covering country of residence, country of embarkation or disembarkation, mode of travel, month of arrival or departure, etc., are shown in the tables of Section II, Overseas Arrivals and Departures, of the annual bulletin *Demography* and for 1972 and later years, in an annual mimeographed bulletin *Overseas Arrivals and Departures*. Mimeographed bulletins are also issued monthly and quarterly.

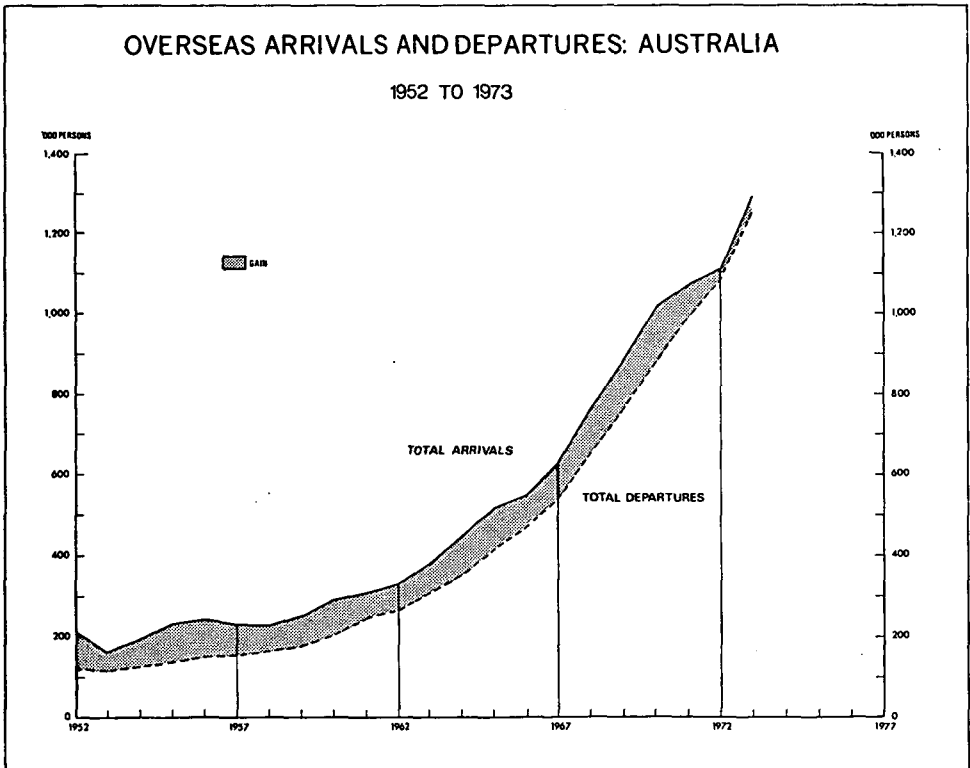
Overseas arrivals and departures since 1941

Earlier issues of the Year Book contain tables showing the increase of population by net migration from 1861 to the latest date, while information about overseas arrivals and departures for individual years from 1901 is published in the annual bulletin *Demography* (see also Statistical Summary of this Year Book and, from 1972, in the mimeographed bulletin *Overseas Arrivals and Departures* (4.23)). Australian statistics of overseas arrivals and departures exclude aircraft and ships' crews, persons on pleasure cruises commencing and finishing in Australia on ships not then engaged in regular voyages and persons who pass through on the same ship or flight or who change flights without leaving the airport's transit area. The following table shows arrivals and departures since 1941, and refers to total movement irrespective of length of stay.

OVERSEAS ARRIVALS AND DEPARTURES, BY SEX: AUSTRALIA, 1941 TO 1973

Period	Total arrivals			Total departures			Excess of arrivals over departures		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
1941-45(a)	35,422	28,503	63,925	30,097	26,019	56,116	5,325	2,484	7,809
1946-50(a)	398,507	303,413	701,920	180,779	168,057	348,836	217,728	135,356	353,084
1951-55	581,300	446,566	1,027,866	340,819	273,223	614,042	240,481	173,343	413,824
1956-60	695,445	568,652	1,264,097	481,235	377,840	859,075	214,210	190,812	405,022
1961-65	1,107,419	896,215	2,003,634	906,956	696,790	1,603,746	200,463	199,425	399,888
1966-70	2,299,254	1,592,832	3,892,086	2,007,981	1,340,297	3,348,278	291,273	252,535	543,808
1969	545,559	353,299	898,858	475,840	293,972	769,812	69,719	59,327	129,046
1970	613,899	412,776	1,026,675	548,353	355,448	903,801	65,546	57,328	122,874
1971	625,066	453,732	1,078,798	581,510	412,683	994,193	43,556	41,049	84,605
1972	608,730	501,940	1,110,670	597,765	485,059	1,082,824	10,965	16,881	27,846
1973	696,212	594,148	1,290,360	676,190	573,752	1,249,942	20,022	20,396	40,418

(a) Excludes movements of defence personnel from September 1939 to June 1947.



Excess of arrivals over departures

The excess of total overseas arrivals over departures is one of the elements of population increase taken into account in preparing the estimated population for other than census dates (see pages 131 and 137 of this chapter). It is necessary to use statistics of total overseas arrivals and departures for this purpose, because Australian population statistics relate to the total population present in Australia at the date of the census or estimate, and not the population normally resident in Australia (which would include those temporarily overseas and exclude those temporarily visiting Australia).

**EXCESS OF ARRIVALS OVER DEPARTURES, BY SEX: AGE AND MARITAL STATUS
AUSTRALIA, 1972 AND 1973**

Age and marital status	1972			1973		
	Males	Females	Persons	Males	Females	Persons
AGE						
Age last birthday on arrival or departure—						
0-4	778	1,006	1,784	2,070	1,565	3,635
5-14	3,724	2,765	6,489	4,269	4,331	8,600
15-24	5,159	3,350	8,509	6,042	4,670	10,712
25-44	-1,237	4,811	3,574	6,937	7,588	14,525
45-64	960	2,597	3,557	400	1,744	2,144
65 and over	1,581	2,352	3,933	304	498	802
Total	10,965	16,881	27,846	20,022	20,396	40,418
MARITAL STATUS						
Never married—						
Under 15 years of age	4,502	3,771	8,273	6,339	5,896	12,235
15 years of age and over	667	3,016	3,683	4,946	3,766	8,712
Married	4,562	7,499	12,061	7,927	9,615	17,542
Widowed	482	2,016	2,498	-130	440	310
Divorced	752	579	1,331	940	679	1,619
Total	10,965	16,881	27,846	20,022	20,396	40,418

Classification of travellers

Since 1 July 1924 overseas travellers have been classified into two principal categories, distinguishing movements for short terms from movements for longer periods (including permanently). Before 1957 these categories were classified as *temporary* and *permanent*. Thereafter the categories were entitled *short-term* and *permanent and long-term*, but the basis of classification was not changed and the figures are directly comparable for the whole period. For short-term travel, overseas visitors and Australian residents are identified separately.

Revised questions for travellers were introduced in mid-1958, and these enabled the separation, from 1 January 1959, of permanent from other long-term movements and also the identification among the permanent departures of former settlers departing.

The principal categories of overseas movement are as follows:

Permanent—consists of persons arriving with the stated intention of settling permanently in Australia (settlers), and Australian residents departing with the stated intention of residing permanently abroad; the latter include *former settlers*, i.e. persons who, on departure from Australia, stated that they had come to Australia to settle, had stayed for a period of twelve months or more and were now departing permanently.

Long-term—consists of the arrival of overseas visitors and the departure of Australian residents with the stated intention of staying (in Australia or in a country abroad respectively) for twelve months or more; and the departure of visitors and the return of residents who have stayed (in Australia or in a country abroad respectively) for twelve months or more.

Short-term—consists of all other movements, including the movement of Australian troops irrespective of period of stay, and U.S. troops who visited Australia on rest and recreation leave during the period October 1967 to December 1971.

This classification is based on statements made by the traveller on arrival in, or departure from, Australia. They represent the traveller's intention at that time. Many travellers subsequently change their intentions, and this must be borne in mind in interpreting the statistics.

The numbers so classified since 1 January 1946 are as follows.

**OVERSEAS ARRIVALS AND DEPARTURES: CLASSIFICATION OF TRAVELLERS
AUSTRALIA, 1946 TO 1973**

ARRIVALS

Period	Permanent and long-term movement			Short-term movement					Total arrivals
	Per- manent Settlers arriving	Long-term Australian residents returning	Overseas visitors arriving	Total permanent and long-term arrivals	Australian residents returning	Overseas visitors arriving			
						In transit	Other	Total	
1946-50	n.a.	n.a.	n.a.	457,988	108,736	n.a.	n.a.	135,196	701,920
1951-55	n.a.	n.a.	n.a.	570,090	216,949	77,825	163,002	240,827	1,027,866
1956-60	n.a.	n.a.	n.a.	615,767	309,611	84,206	254,513	338,719	1,264,097
1961-65	575,992	111,288	73,848	761,128	585,203	143,424	513,879	657,303	2,003,634
1966-70	804,063	180,741	122,405	1,107,209	1,298,500	207,379	1,278,998	1,486,377	3,892,086
1969	183,416	38,308	26,867	248,591	288,990	42,485	318,792	361,277	898,858
1970	185,325	42,099	31,194	258,618	351,929	58,330	357,798	416,128	1,026,675
1971	155,525	47,782	30,500	233,807	412,598	64,727	367,666	432,393	1,078,798
1972	112,468	54,278	26,559	193,305	490,962	77,592	348,811	426,403	1,110,670
1973	105,003	65,021	27,370	197,394	620,842	73,074	399,050	472,124	1,290,360

DEPARTURES

Period	Permanent and long-term movement			Short-term movement						Total departures
	Permanent		Total permanent departures	Long-term		Total permanent and long-term departures	Overseas visitors			
	Former settlers departing	Other residents departing		Australian residents departing	Overseas visitors departing		Australian residents departing	Overseas visitors departing		
1946-50	n.a.	n.a.	n.a.	n.a.	n.a.	105,968	101,787	141,081	348,836	
1951-55	n.a.	n.a.	n.a.	n.a.	n.a.	155,509	212,978	245,555	614,042	
1956-60	n.a.	n.a.	n.a.	n.a.	n.a.	210,807	306,118	342,150	859,075	
1961-65	48,491	33,989	82,480	189,526	63,593	335,599	593,119	675,028	1,603,746	
1966-70	115,954	43,758	159,712	281,097	71,746	512,555	1,294,118	1,541,605	3,348,278	
1968	23,814	7,861	31,675	51,386	12,617	95,678	251,880	311,181	658,739	
1969	24,739	8,892	33,631	59,027	15,602	108,260	288,805	372,747	769,812	
1970	26,756	10,538	37,294	64,215	18,727	120,236	352,526	431,039	903,801	
1971	29,449	11,673	41,122	67,699	21,433	130,254	413,917	450,022	994,193	
1972	33,172	12,709	45,881	66,853	24,251	136,985	504,519	441,320	1,082,824	
1973	30,325	13,105	43,430	64,964	21,506	129,900	638,141	481,901	1,249,942	

Note. Further information on short and long term movement is shown in the Chapter Cultural Activities, Recreation and Travel.

Permanent movement

In the following paragraphs particulars are given of the persons who on arrival in Australia stated that they came intending to settle, and of Australian residents who on their departure from Australia stated their intention of residing permanently abroad, classified according to nationality, occupation, age, marital status, and State or Territory of intended residence (arrivals) or of last residence (departures).

Nationality

**OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT
NATIONALITY, AUSTRALIA, 1972 AND 1973
(Persons)**

Nationality	1972				1973			
	Arrivals			Departures	Arrivals			Departures
	Assisted (a)	Other	Total		Assisted (a)	Other	Total	
British—								
Country of citizenship—								
Australia	418	2,051	2,469	12,245	403	2,755	3,158	12,809
Canada	108	1,843	1,951	718	65	1,511	1,576	841
Bangladesh, India, Pakistan(b), Sri Lanka	2	3,666	3,668	69	67	3,761	3,828	47
Ireland(b)	1,405	452	1,857	587	1,012	519	1,531	581
Malta	937	578	1,515	319	1,204	851	2,055	347
New Zealand	33	3,390	3,423	2,934	14	4,253	4,267	3,115
South Africa(b)	226	866	1,092	189	184	635	819	172
United Kingdom and Colonies	36,193	13,360	49,553	17,933	27,969	18,574	46,543	16,143
Other countries	59	1,858	1,917	227	43	1,667	1,710	147
Citizenship not stated	1,193	1,582	2,775	1,152	542	1,137	1,679	1,012
Total, British	40,574	29,646	70,220	36,373	31,503	35,663	67,166	35,214
American (U.S.)	2,189	2,710	4,899	1,959	907	2,102	3,009	2,265
Austrian	186	108	294	219	236	88	324	179
Dutch	860	406	1,266	1,069	668	348	1,016	810
French	1,235	220	1,455	499	693	253	946	358
German	1,256	507	1,763	1,074	1,042	584	1,626	860
Greek	2,234	1,989	4,223	386	863	2,370	3,233	305
Italian	2,938	1,611	4,549	929	1,776	1,238	3,014	764
Lebanese	24	2,443	2,467	35	35	2,871	2,906	20
Portuguese	816	436	1,252	61	658	516	1,174	64
Spanish	911	270	1,181	173	1,188	216	1,404	203
Swiss	483	199	682	427	183	388	571	37
Turkish	875	755	1,630	47	1,439	1,173	2,612	57
Yugoslav	5,149	2,109	7,258	734	3,565	2,502	6,067	657
Other, including stateless	3,980	5,349	9,329	1,896	5,066	4,869	9,935	1,279
Grand total	63,710	48,758	112,468	45,881	49,822	55,181	105,003	43,430

(a) For details of assisted passage schemes see pages 163-4. (b) Included with 'British nationality' for the purpose of this table.

Occupation

**OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT
OCCUPATION AND SEX, AUSTRALIA, 1972 AND 1973**

Occupation group	1972				1973			
	Arrivals		Departures		Arrivals		Departures	
	Males	Females	Males	Females	Males	Females	Males	Females
Professional, technical and related workers	5,763	3,595	2,535	1,694	4,822	3,348	2,444	1,762
Administrative, executive, and managerial workers	2,170	318	1,324	147	2,147	299	1,306	142
Clerical workers	1,863	4,940	930	2,791	1,724	5,084	801	2,516
Sales workers	1,520	704	759	408	1,481	719	710	422
Farmers, fishermen, hunters, timber getters, and related workers	737	25	313	16	700	31	312	10
Miners, quarrymen, and related workers	117	..	127	..	113	..	101	..
Workers in transport and communication	1,954	335	834	152	1,787	384	751	144
Craftsmen and production-process workers	14,601	1,683	5,829	603	13,195	1,783	5,052	571
Labourers(a)	4,238	..	1,530	..	3,566	..	1,377	..
Service (protective and other), sport, and recreation workers	1,502	3,253	717	664	1,454	2,846	609	599
Occupation inadequately described or not stated	2,391	553	516	91	1,965	399	370	66
Persons not in work force—								
Children and students	19,298	17,720	7,772	7,121	18,778	17,409	7,617	6,916
Others	1,669	21,519	693	8,315	1,535	19,434	815	8,017
Total	57,823	54,645	23,879	22,002	53,267	51,736	22,265	21,165

(a) Labourers (so described), not elsewhere classified and freight handlers, including waterside workers.

Age and marital status

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT, BY SEX
AGE DISTRIBUTION, AND MARITAL STATUS, AUSTRALIA, 1973

Age last birthday on arrival or departure	Arrivals				Departures			
	Never married	Married	Widowed or divorced	Total	Never married	Married	Widowed or divorced	Total
MALES								
0-4	7,455	..	..	7,455	2,820	..	..	2,820
5-14	9,227	..	..	9,227	4,053	..	..	4,053
15-24	9,366	2,930	54	12,350	2,664	787	12	3,463
25-44	4,423	14,212	534	19,169	2,063	6,727	182	8,972
45-64	232	3,368	259	3,859	182	1,944	135	2,261
65 and over	46	864	297	1,207	61	469	166	696
<i>Total</i>	<i>30,749</i>	<i>21,374</i>	<i>1,144</i>	<i>53,267</i>	<i>11,843</i>	<i>9,927</i>	<i>495</i>	<i>22,265</i>
FEMALES								
0-4	6,983	..	..	6,983	2,689	..	..	2,689
5-14	8,729	..	..	8,729	3,641	..	..	3,641
15-24	6,282	6,748	93	13,123	2,080	1,882	29	3,991
25-44	2,351	13,468	630	16,449	1,020	6,384	263	7,667
45-64	221	3,182	1,325	4,728	125	1,691	424	2,240
65 and over	62	572	1,090	1,724	51	328	558	937
<i>Total</i>	<i>24,628</i>	<i>23,970</i>	<i>3,138</i>	<i>51,736</i>	<i>9,606</i>	<i>10,285</i>	<i>1,274</i>	<i>21,165</i>
PERSONS								
0-4	14,438	..	..	14,438	5,509	..	..	5,509
5-14	17,956	..	..	17,956	7,694	..	..	7,694
15-24	15,648	9,678	147	25,473	4,744	2,669	41	7,454
25-44	6,774	27,680	1,164	35,618	3,083	13,111	445	16,639
45-64	453	6,550	1,584	8,587	307	3,635	559	4,501
65 and over	108	1,436	1,387	2,931	112	797	724	1,633
<i>Total</i>	<i>55,377</i>	<i>45,344</i>	<i>4,282</i>	<i>105,003</i>	<i>21,449</i>	<i>20,212</i>	<i>1,769</i>	<i>43,430</i>

State or Territory of intended residence (arrivals) or last residence (departures). The following table shows the number of settlers arriving in Australia by State or Territory of intended residence and the number of Australian residents departing permanently by State or Territory of last residence, for the years 1971 to 1973. Settlers are asked, on or before arrival, the State or Territory of Australia in which they next intend to stay for twelve months or more. Their replies represent the settlers' intentions at the time and these may not be realised. Residents departing permanently are asked the State or Territory in which they last stayed for twelve months or more. The allocation to States and Territories in the table is based on these statements, except that settlers proceeding to the migrant reception centre, Bonegilla, Victoria, were allocated, as far as was practicable, to the State or Territory of their placement from the centre. The migrant reception centre was closed late in 1971.

OVERSEAS ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT
SETTLERS ARRIVING AND RESIDENTS DEPARTING, BY STATE OR TERRITORY OF
INTENDED RESIDENCE (ARRIVALS) OR LAST RESIDENCE (DEPARTURES), 1971 TO 1973
(Persons)

State or Territory of intended residence (arrivals) or last residence (departures)	Settlers arriving			Residents departing		
	1971	1972	1973	1971	1972	1973
New South Wales	60,530	42,206	38,643	13,914	16,090	15,406
Victoria	41,917	28,573	27,012	8,687	8,775	8,673
Queensland	10,397	9,880	10,672	3,756	4,077	4,312
South Australia	13,348	10,406	10,269	3,625	4,224	3,939
Western Australia	19,743	14,128	11,839	5,047	5,863	4,580
Tasmania	1,323	1,056	1,161	636	665	608
Northern Territory	607	696	690	346	353	533
Australian Capital Territory	1,296	1,091	1,157	495	658	692
Not stated(a)	6,364	4,432	3,560	4,616	5,176	4,687
<i>Total</i>	<i>155,525</i>	<i>112,468</i>	<i>105,003</i>	<i>41,122</i>	<i>45,881</i>	<i>43,430</i>

(a) Includes settlers passing through the migrant reception centre who were not placed in time for allocation to States.

Former settlers and other residents departing permanently—country of intended residence. The principal countries of intended residence of persons departing permanently during the years 1972 and 1973 are shown in the following table for 'former settlers' departing permanently (see definition on page 157) and other residents departing permanently.

**OVERSEAS DEPARTURES—PERMANENT MOVEMENT
COUNTRY OF INTENDED RESIDENCE^(a)
AUSTRALIA, 1972 AND 1973**

Country of intended residence ^(a)	1972			1973		
	Former settlers	Other residents	Total	Former settlers	Other residents	Total
Canada	895	560	1,455	1,098	715	1,813
New Zealand	4,382	3,520	7,902	4,640	4,413	9,053
Papua New Guinea	286	1,364	1,650	190	867	1,057
United Kingdom and Ireland	17,160	2,781	19,941	15,028	2,780	17,808
Other Commonwealth countries	916	963	1,879	888	825	1,713
<i>Total, Commonwealth countries</i>	<i>23,639</i>	<i>9,188</i>	<i>32,827</i>	<i>21,844</i>	<i>9,600</i>	<i>31,444</i>
Germany	1,064	289	1,353	855	275	1,130
Italy	848	308	1,156	778	388	1,166
Netherlands	952	380	1,332	803	287	1,090
Other European countries	3,492	816	4,308	2,832	774	3,606
United States of America	1,923	994	2,917	2,229	1,090	3,319
Other countries	1,254	734	1,988	984	691	1,675
<i>Total, foreign countries</i>	<i>9,533</i>	<i>3,521</i>	<i>13,054</i>	<i>8,481</i>	<i>3,505</i>	<i>11,986</i>
Grand total	33,172	12,709	45,881	30,325	13,105	43,430

(a) For a period of twelve months or more.

IMMIGRATION INTO AUSTRALIA

Powers and legislation of the Australian Government

Under Section 51 (xix), (xxvii) and (xxviii) of the Commonwealth Constitution, the Australian Parliament is empowered to make laws with respect to immigration, emigration, aliens and the influx of criminals. Immigration into Australia is regulated by the *Migration Act 1958-1973* which came into force on 1 June 1959.

Any immigrant entering Australia after the commencement of the Act without having been granted an 'entry permit' or who is not within an exempted class is a prohibited immigrant. Exempted persons include diplomatic, consular and trade representatives of other countries, and seamen who enter with leave while their ships are in Australian ports. For the purposes of the Migration Act an 'immigrant' includes a person entering for temporary stay.

An entry permit is normally granted at the port of entry by means of a stamp in the traveller's passport or equivalent travel document. Temporary permits are granted to visitors and persons whose stay is to be of limited duration. For other persons permits are issued without limitation as to stay. A person who is refused an entry permit must not be permitted (by the carrier company) to enter Australia; otherwise the carrier company is liable to a fine of \$1,000.

The Act contains provision for the deportation of persons who enter Australia without an entry permit, who overstay their approved period of residence or who are convicted of crimes.

The *Aliens Act 1947-1973* provides that a register of aliens shall be maintained for every State and mainland Territory of Australia. Unless exempted, aliens 16 years of age and over entering or remaining in Australia are required to register as permanent residents. They are required to notify marriage within thirty days of marriage taking place. The Act provides also that consent must be obtained before an alien may change his or her surname.

For the purposes of the Aliens Act an 'alien' is a person 16 years of age and over who is not an Australian citizen, an Irish citizen, a person having the status of British subject, or a British or Australian protected person.

The *Immigration (Guardianship of Children) Act 1946-1966* provides that the Minister for Immigration becomes the legal guardian of every person under the age of 21 years who enters Australia (except for certain exempted groups) other than in the charge of, or for the purpose of living in the care of, a parent or adult relative. It is primarily administered through the child welfare authorities in each State and mainland Territory who, as the Minister's delegates under the Act, supervise the welfare of each 'immigrant child'.

Department of Immigration

NOTE. The following section relates to the functions of the Department of Immigration before 12 June 1974 when the Department was amalgamated with the Department of Labor to form the Department of Labor and Immigration.

Functions of the Department of Immigration

The functions of the Department of Immigration include: administration of immigration policy; planning immigration programs; consideration of all applications for permanent and temporary residence; formulation of policy in relationship to international organisations and international conventions; Australian citizenship; passports; emigration; deportation; prevention of illegal entry; migrant accommodation; migrant education and settlement; and research into effects of immigration.

Immigration Program 1973-74

The immigration program for 1973-74 has been set at 110,000 including some 50,000 financially assisted.

Immigration Policy

Australia's immigration policy is applied uniformly on a global basis, without discrimination on any grounds of race or colour of skin or nationality.

Family reunion. Priority is given to the reunion of families (spouses, dependent children, aged or otherwise dependent parents, fiancées and fiancés) sponsored by Australian residents. These are admitted freely, subject only to health and character, and are eligible for assisted passages.

Other sponsored migrants. Any Australian resident also has the right to sponsor:

- (a) close non-dependent blood relatives; and
- (b) more distant relatives and friends.

Close non-dependent blood relatives (e.g. brothers, sisters and parents of working age) are approved for migration subject to:

- economic viability,
- personal qualities,
- medical fitness,
- character,
- intention to settle and become an Australian citizen.

More distant relatives and friends require qualifications or skills which would meet a community need in Australia in addition to meeting the criteria above.

Un-sponsored migrants. While priority is given to family reunion migration, provision also exists for un-sponsored migrants required to meet national needs.

Assisted migration into Australia

Detailed statistics of assisted migration into Australia are shown in *Australian Immigration; Consolidated Statistics* and *Australian Immigration; Quarterly Statistical Summary*.

The following tables show total assisted migration since 1947 and arrivals under other assisted passage schemes and arrangements

ASSISTED MIGRATION: AUSTRALIA, 1947 TO 1973

<i>Period</i>	<i>Nominated and selected (assisted) arrivals</i>
1947-50	273,195
1951-55	275,241
1956-60	305,517
1961-65	337,132
1966-70	537,478
1966	89,743
1967	82,247
1968	105,102
1969	125,958
1970	134,428
1971	103,811
1972	63,710
1973	49,822

Details of the joint scheme of assisted immigration arrived at by agreement between the Australian and State Governments, which operated from 1920 to 1939, were published in earlier issues of the Year Book (see No. 38, page 576). After the outbreak of hostilities in 1939 it was decided to discontinue the grant of assisted passages for the duration of the war. Details of assisted migration schemes which have operated since 1947 are shown in earlier issues of the Year Book (see No. 58, page 153).

UNITED KINGDOM ASSISTED PASSAGE AGREEMENT: NUMBER OF MIGRANTS(a) STATES AND TERRITORIES OF INTENDED RESIDENCE JANUARY 1947 TO JUNE 1973

<i>Period</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T. and N.T.</i>	<i>Cwlth</i>
January 1947 to								
June 1965	189,548	172,662	64,507	88,844	57,427	15,485	6,483	594,956
1965-66	21,546	14,862	5,671	17,065	9,965	1,183	462	70,754
1966-67	20,586	14,995	5,538	13,768	13,965	1,234	484	70,570
1967-68	16,297	11,929	4,639	8,384	13,034	1,196	398	55,877
1968-69	23,754	14,705	5,954	12,046	14,990	1,536	399	73,384
1969-70	22,583	13,448	5,843	11,515	13,955	1,268	423	69,035
1970-71	16,932	10,801	5,095	10,003	12,431	1,137	456	56,855
1971-72	14,345	8,692	4,662	7,477	8,737	598	323	44,834
1972-73	10,571	6,235	4,352	5,914	5,141	530	252	32,995
Total January 1947 to June 1973	336,162	268,329	106,261	175,016	149,645	24,167	9,680	1,069,260

(a) Includes child migrants.

**ARRIVALS UNDER ASSISTED MIGRATION SCHEMES: AUSTRALIA, JANUARY 1947
TO JUNE 1973**

<i>Assisted migration scheme</i>	<i>January 1947 to June 1968</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>January 1947 to June 1973</i>
Austrian	20,331	419	555	440	227	183	22,155
Belgian	2,311	262	201	167	159	90	3,190
General Assisted Passage(a)	36,729	2,467	1,192	..	..	..	40,388
German	85,073	2,449	3,148	2,622	1,491	1,192	95,975
Greek	49,497	6,189	6,249	6,198	3,088	1,257	72,478
Italian	42,977	4,686	5,257	4,615	3,641	1,920	63,096
Maltese	39,296	755	641	1,048	904	1,130	43,774
Netherlands	73,601	2,406	2,304	1,724	1,223	598	81,856
Refugee	218,473	7,613	16,495	11,812	3,259	2,512	260,164
Spanish	8,250	878	1,130	1,013	856	856	12,983
Special Passage Assistance Programme(b)	15,808	14,508	20,437	22,578	15,918	10,449	99,698
Turkish . . . . .	..	2,014	3,542	3,369	1,822	1,216	11,963
United Kingdom	792,157	73,384	69,035	56,855	44,834	32,995	1,069,260
Yugoslav . . . . .	..	..	..	5,853	4,135	2,303	12,291
Other schemes	28,098	439	1,682	1,553	786	268	32,826
Total	1,412,601	118,469	131,868	119,847	82,343	56,969	1,922,097

(a) Mostly Scandinavians, U.S. Americans, and British nationals from countries other than the United Kingdom.
 (b) Includes United States Passage Assistance Programme (U.S.P.A.P.).

Accommodation of migrants

Migrants must be assured of accommodation on arrival, unless they have sufficient funds to be independent. For those migrants nominated by relatives or friends this initial accommodation has usually been in private homes. Most of the assisted migrants nominated by the Australian Government are provided with transitory accommodation in migrant hostels operated by Commonwealth Hostels Ltd, a non-profit making Government-sponsored company. These hostels, which provide a range of services to help migrants to settle in Australia, are progressively being improved to provide accommodation with private facilities for all families.

The total capacity of hostels is about 11,000. A further 2,000 migrants nominated by the Australian Government can be accommodated in self-contained flats. Hostel accommodation is available to families for up to 12 months, while tenancies of flats are limited to six months. Childless couples and single persons are accepted in hostels for up to six months and three months respectively. Some single women are accommodated in Y.W.C.A. hostels under subsidised tariff arrangements.

British assisted migrants nominated by State Governments are provided with initial accommodation in reception centres operated by the State authorities. The Australian Government contributes to the capital cost of these establishments on a dollar for dollar basis.

Immigration Advisory, Planning and Publicity Councils

Three bodies have been established to advise the Australian Government on the social, economic and publicity aspects of the immigration program.

The *Immigration Advisory Council*, established in 1947, is representative of a broad cross-section of the Australian community. Members, in general, represent national organisations e.g. the Australian Council of Trade Unions, the Returned Servicemen's League of Australia, and the National Youth Council. The Council advises the Government on the integration of migrants.

The *Immigration Planning Council*, established in 1949, comprises members of the community who are recognised leaders in industry and commerce (trade unions and employers), demography, economics, finance, science and town planning. The Council advises the Government on the economic considerations affecting the immigration program, size, and distribution of future population and urban environmental development.

The *Immigration Publicity Council*, established in 1962, advises on all public relations and publicity aspects of the immigration program. Its members represent the press, radio, advertising and television interests.

Professional migration

In 1969, the Committee on Overseas Professional Qualifications was established. Comprising six eminent Australians and serviced by a permanent secretariat, it works in close co-operation with the various professional and registering authorities responsible for the assessment and recognition of professional qualifications, and assists them by providing information and advice on the comparability of overseas qualifications with Australian awards.

Passports

Australian passports are issued under the *Passports Act* 1938-1966 and Passport Regulations. Applicants for passports must furnish evidence of their identity and citizenship and pay a fee of four dollars. Approximately 300,000 Australian passports are issued each year in Australia and abroad.

Citizenship

Legislation

The *Nationality and Citizenship Act* 1948 which came into force on 26 January 1949 created the status of 'Australian citizen'. On 4 June 1969 the Act became the *Citizenship Act* 1948-1969. On 1 December 1973 the Act became the *Australian Citizenship Act* 1948-1973.

Australian citizenship may be acquired (a) by birth in Australia, (b) by birth abroad subject to registration of the birth at an Australian Consulate, and (c) by grant of citizenship to persons resident in Australia under the conditions prescribed in the Act.

The effect of the amendment to the legislation in 1973 was that all persons are now eligible for the grant of Australian citizenship on the same basis provided that they have lived in Australia for at least three years, are of good character, have an adequate knowledge of English and of the responsibilities and privileges of citizenship, and that they declare their intention to reside permanently in Australia.

The Act recognises the independence of married women. Australian citizenship is not lost solely by marriage to another national nor do women automatically acquire Australian citizenship upon marriage to an Australian citizen. Wives of Australian citizens are exempted from the three year residential requirement when applying for the grant of Australian citizenship.

TOTAL PERSONS GRANTED AUSTRALIAN CITIZENSHIP, 1972-73 FORMER CITIZENSHIP

Argentinian	40	French	241	Maltese	993	Syrian	138
Australian pro- tected person	112	German	1,101	Mauritian	876	Trinidad and Tobago, cit. of	41
Austrian	309	Greek	6,704	New Zealander	366	Turkish	158
Belgian	87	Hungarian	366	Norwegian	40	Ukrainian	52
Burmese	314	Indian	2,290	Pakistani	98	Polish	837
Sri Lankan	793	Indonesian	42	Portuguese	135	Rhodesian	52
Chinese	425	Iranian	53	Romanian	36	Russian	236
Cypriot	717	Iraqi	258	Romanian	36	Singaporean	309
Czechoslovak	1,158	Irish	199	Romanian	36	Spanish	361
Danish	124	Israeli	224	Russian	236	South African	756
Dutch	1,014	Italian	4,344	Singaporean	309	Stateless	197
Egyptian	1,345	Jordanian	120	Spanish	361	Swedish	47
Fijian	107	Latvian	40	Swedish	47	Swiss	202
Filipino	175	Lebanese	1,543	Swedish	47		
Finnish	221	Lithuanian	26	Swiss	202		
		Malaysian	521				
						Total(b)	44,576

(a) Includes 366 former aliens. (b) Includes 27,106 former aliens.

FORMER ALIENS GRANTED AUSTRALIAN CITIZENSHIP, JANUARY 1945 TO JUNE 1973

<i>Previous nationality</i>	<i>Previous nationality</i>	<i>Previous nationality</i>	<i>Previous nationality</i>
Albanian . . . 1,175	Egyptian . . . 5,544	Jordanian . . . 790	Swedish . . . 887
Australian protected person . . . 2,542	Estonian . . . 6,143	Latvian . . . 18,335	Swiss . . . 2,665
Austrian . . . 11,037	Finnish . . . 3,579	Lebanese . . . 9,345	Syrian . . . 560
Belgian . . . 1,297	French . . . 3,185	Lithuanian . . . 8,801	Turkish . . . 796
Bulgarian . . . 1,397	German . . . 53,351	Norwegian . . . 1,420	Ukrainian . . . 20,450
Burmese . . . 1,209	Greek . . . 84,343	Polish . . . 71,879	U.S. American . . . 2,228
Chinese . . . 8,347	Hungarian . . . 32,624	Portuguese . . . 1,036	Yugoslav . . . 59,013
Czechoslovak . . . 13,924	Iraqi . . . 644	Romanian . . . 3,296	Others . . . 2,930
Danish . . . 2,926	Israeli . . . 5,058	Russian . . . 12,100	
Dutch . . . 77,914	Italian . . . 161,932	Spanish . . . 3,192	Total . . . 715,300
	Japanese . . . 837	Stateless . . . 16,569	

Integration services

Migrant settlement and welfare

There has been increased Government involvement in the various welfare and community services assisting migrants to settle in Australia.

The Department of Immigration provides direct services to migrants through social workers, welfare and integration officers and a translation and interpreting service, as well as assisting voluntary agencies.

To supplement the Department's direct involvement in migrant counselling and welfare, an additional forty-eight multi-lingual welfare officers have been appointed to the various States.

The Telephone Interpreter Service was established in Sydney and Melbourne in 1973 and in Perth early in 1974. This service, designed to further mitigate communication problems within the migrant community by offering a 24-hour interpreting and counselling service in Sydney and Melbourne (16 hours in Perth), will shortly be extended to Adelaide and Brisbane.

As it is not always possible for migrants to have access to social workers in the capital city offices of the Department of Immigration, grants are paid by the Government to selected community based voluntary welfare agencies to employ additional social workers to assist migrants locally. Approval has been given for sixty such organisations to receive financial assistance.

The ethnic communities, through their own organisations, ease the strain of adjustment and play a major role in the resettlement process. A survey conducted by the Department in 1969-72 identified some 2,100 such organisations, and contacts have been made with the leaders of 900 of these. A National Directory of Ethnic Organisations is to be published annually.

Sociological research is undertaken into the ethnic, cultural and historical background of individual national groups, the history of their migration to Australia, their residential distribution and their economic, cultural and scientific contribution to Australia. Other areas of concern are certain social and medical conditions of migrants, e.g. discrimination against newcomers, the incidence of crime, mental illness, alcoholism and tuberculosis.

A team of psychologists and support staff undertakes surveys and other research into migrant integration and welfare in Australia and migrant selection overseas. Important areas of this research are studies of the general background, motivation and post-arrival experiences of immigrants generally and of particular groups. Studies are also undertaken on aspects of more general relevance to the integration of migrants and their welfare and adjustment. The information gained facilitates the evaluation of current programs and policies bearing upon the settlement and integration of immigrants in Australia and their selection and counselling overseas.

Eight Good Neighbour Councils in the six States and two Territories of Australia operate as autonomous voluntary organisations with the many community groups and people throughout Australia whose common objective is to assist migrants to integrate. In certain instances Councils offer direct services to migrants and are financially sponsored by grants from the Australian Government. From 1 January 1974 these grants enabled the Councils to pay the administrative costs involved in maintaining central offices in the capital cities, ten regional offices and five sub-offices as well as employing 78 staff members. The Councils worked with more than 972 organisations and controlled a network of 91 branches and 525 representatives in cities and towns.

Migrant education

Migrant education services are available without cost to assist migrants to overcome language problems and to settle effectively into the Australian community. Authority for these activities derives from the *Immigration (Education) Act 1971-1973*.

Under the adult program instruction is provided in source countries before embarkation, on board ship and, after arrival in Australia, in migrant hostels and in the community generally. There is a wide range of part-time and full-time courses which include accelerated and intensive instruction, television and radio programs and a number of special courses catering for migrant workers in industry, women (including a one-to-one instruction scheme using voluntary tutors for migrant women in the home) and other individual categories of migrants. Migrants attending full-time courses are paid a living allowance to maintain themselves and their families.

Under the child program, provision is made for teachers, equipment and materials for special English classes for migrant children in government and non-government schools, and training courses are arranged for the special teachers employed under the program. At 1 July 1973 there were 43,000 migrant children receiving language instruction in special classes and the number of special teachers employed was 1,140. These were expected to rise to 60,000 children and 1,500 special teachers during the financial year.

A new development in 1973 was the provision, under the child program, of funds for additional classrooms in both government and independent schools under an emergency program to be spread over two financial years. It is expected that 124 classrooms will have been provided in the 1973-74 financial year involving an expenditure of \$2 million. The emergency program will continue in the next financial year (involving an overall expenditure of \$5.25 million).

A network of new migrant education centres provides a focal point for migrant education in each State. Centres were opened in Perth in February 1973, Brisbane in September 1973, Adelaide in November 1973 and in Sydney in April 1974. The existing centre in Melbourne is being extended and improved. These centres are equipped with language laboratories and other teaching aids and will in addition provide the administrative headquarters at the State level for migrant education programs.

During 1973-74 the Department, in co-operation with the Academy of Social Sciences in Australia, commissioned three major research projects in the child migrant education field. The Academy will be supervising two of the projects, which are concerned with education experiences of non-English speaking migrant children and the problems encountered by newly-arrived migrant children including the means adopted for coping with them. The third project is being conducted by the Australian Council of Educational Research and will produce education tests and allied devices which will be of practical help to teachers of migrant children. Each project will take about three years to complete, and the total costs will be of the order of \$500,000. Expenditure in 1973-74 is expected to be \$93,000.

For further details on migrant education see Chapter 19, Education.

Survey of internal migration 1972-73

In May 1973 a survey was conducted in conjunction with the quarterly population survey (see the chapter Employment and Unemployment) in order to obtain information about the movement of persons within Australia during the period 1 May 1972 to 30 April 1973. Persons were classified as having moved if the address of their usual place of residence on 30 April 1973 was different from that on 1 May 1972 and both places were in Australia. No information was obtained about the number of different changes made between these dates. Persons who were usually resident at the same address on both dates, but who had moved away and had returned during this period were regarded, for the purposes of the survey, as not having moved.

The table of standard errors and the comments on the reliability of estimates given in the chapter Employment and Unemployment are also applicable to this survey.

Further details of the survey, and of earlier surveys of internal migration, were published in the mimeographed bulletin *Internal Migration, 1969-70 to 1972-73* (4.26).

**NON-INSTITUTIONAL CIVILIAN POPULATION AGED 15 YEARS AND OVER(a)
CHANGE OF USUAL RESIDENCE, MAY 1972 TO APRIL 1973**

	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Per cent of total</i>
	('000)	('000)	('000)	
Changed usual place of residence—				
Within the same State or Territory	704.2	709.7	1,413.9	15.6
Moved to another State or Territory	92.9	77.4	170.3	1.9
<i>Total</i>	797.0	787.2	1,584.2	17.5
Did not change usual place of residence	3,689.7	3,789.7	7,479.4	82.5
<i>Total</i>	4,486.8	4,576.9	9,063.6	100.0

(a) Resident in Australia on 1 May 1972 and 30 April 1973.

**PERSONS WHO CHANGED THEIR USUAL RESIDENCE(a), BY TYPE OF MOVE
MAY 1972 TO APRIL 1973**

('000)

<i>From</i>	<i>To capital city(b)</i>		<i>To other area</i>		<i>Total movers</i>		<i>Total</i>
	<i>In same State</i>	<i>In another State</i>	<i>In same State or Territory</i>	<i>In another State or Territory</i>	<i>Intrastate</i>	<i>Interstate</i>	
MALES							
State capital city(b)	401.5	30.1	45.4	18.7	446.9	48.8	495.7
Other area	41.1	20.9	216.2	23.1	257.2	44.1	301.3
<i>Total</i>	442.6	51.0	261.6	41.9	704.2	92.9	797.0
FEMALES							
State capital city(b)	413.8	28.0	47.8	16.9	461.5	44.8	506.4
Other area	40.2	16.6	208.0	16.0	248.2	32.6	280.8
<i>Total</i>	454.0	44.6	255.8	32.9	709.7	77.4	787.2
PERSONS							
State capital city(b)	815.3	58.0	93.2	35.6	908.5	93.6	1,002.1
Other area	81.3	37.5	424.2	39.2	505.4	76.7	582.1
<i>Total</i>	896.6	95.6	517.3	74.8	1,413.9	170.3	1,584.2

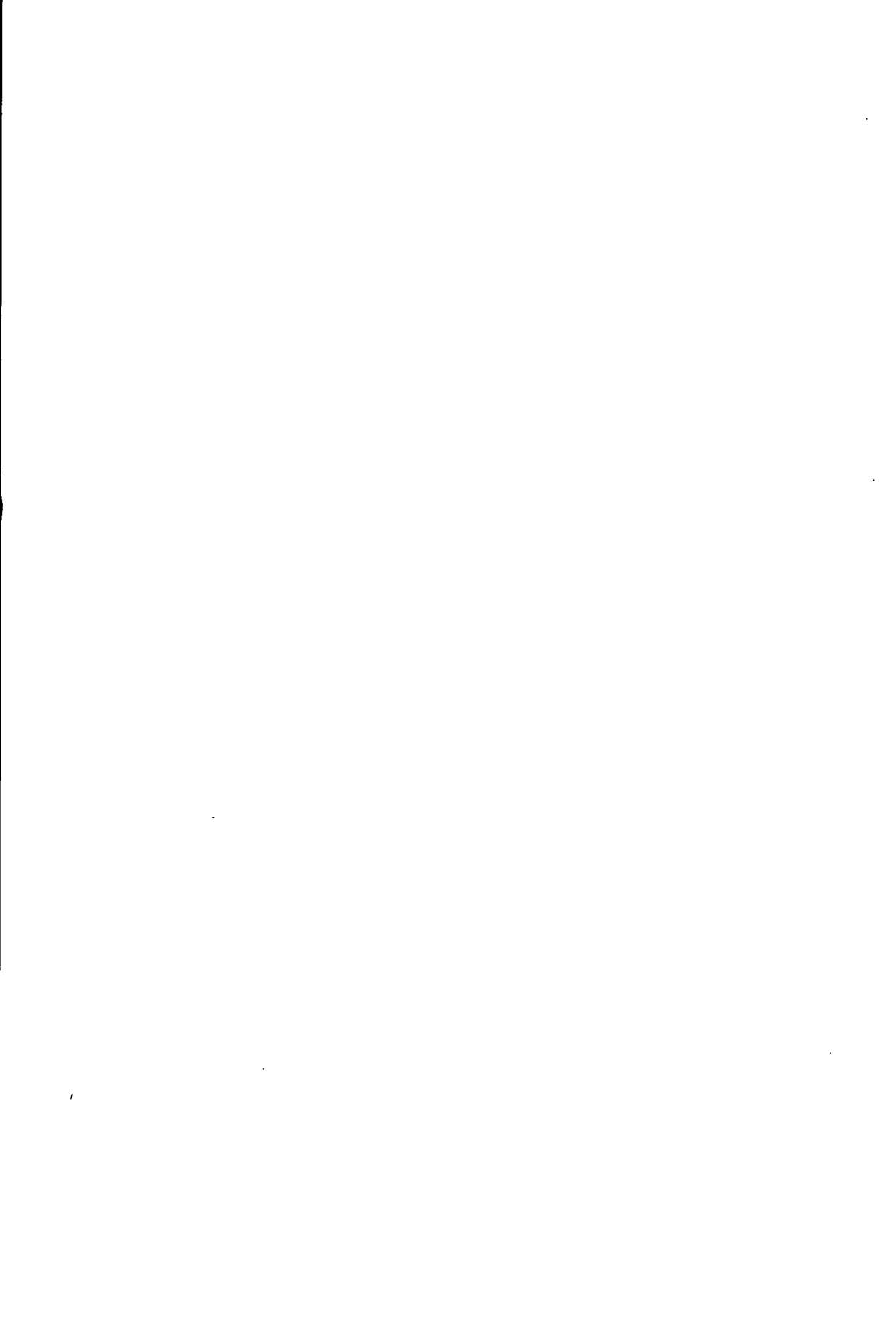
(a) Non-institutional civilians aged 15 years and over. (b) Statistical Divisions of the six State capital cities, as defined for the *Census of Population and Housing, 30 June 1971*, see pages 140-5.

**PERSONS WHO CHANGED THEIR USUAL RESIDENCE(a), BY TYPE OF
MOVE, MAY 1972 TO APRIL 1973**
(^{'000})

<i>Type of move</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.(b)</i>
From address in State capital city(c)—							
To another address in same capital city	307.2	252.8	83.7	78.9	81.0	11.7	815.3
To elsewhere within same State	36.6	17.8	15.2	8.0	13.9	*	93.2
To another State or Territory	36.5	22.9	12.2	11.2	8.6	*	93.6
To address in State capital city(c)—							
From elsewhere within same State	24.9	14.2	19.9	9.4	10.5	*	81.3
From another State or Territory	24.0	31.3	16.9	11.0	10.5	*	95.6
<i>Net gain (+) or loss (-), State capital cities</i>	-24.2	+4.7	+9.4	*	*	*	-10.0
From address not in State capital city(c)—							
To another address outside State capital city, in same State or Territory	161.5	59.9	104.9	19.7	27.9	19.3	424.2
To capital city of same State	24.9	14.2	19.9	9.4	10.5	*	81.3
To another State or Territory	19.0	9.9	16.0	6.1	7.4	*	76.7
To address not in State capital city(c)—							
From capital city of same State	36.6	17.8	15.2	8.0	13.9	*	93.2
From another State or Territory	14.0	8.4	21.7	*	4.2	*	74.8
<i>Net gain (+) or loss (-), areas outside State capital cities</i>	+6.7	*	*	-4.1	*	*	+10.0
Total net gain (+) or loss (-)	-17.5	+6.9	+10.4	*	*	*	..

(a) See note (a) to previous table. (b) Includes the Northern Territory and the Australian Capital Territory.
(c) See note (b) to previous table.

* Less than 4,000. Not published because subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.



CHAPTER 8

VITAL STATISTICS

The tables in this chapter are confined to the principal characteristics of vital statistics for Australia and relate, in the main, to the year 1973 for marriages and divorces and 1972 for births, deaths, and infant deaths. Comparisons have been restricted, in general, to the individual years 1969 to 1973 and the five year periods 1946-50 to 1966-70, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed figures such as single age particulars and cross-classifications of various characteristics, are published in the annual bulletins, *Demography* (4.9) and *Causes of Death* (4.7). Current information is published in the *Monthly Review of Business Statistics* (1.4), the *Quarterly Summary of Australian Statistics* (1.3), the mimeograph bulletins *Births* (4.4), *Deaths* (4.8), *Marriages* (4.10), *Divorce* (13.1) (annual) and *Vital and Population Statistics* (quarterly) (4.11).

In most tables the statistics of births, deaths and marriages exclude particulars of full-blood Aborigines for years before 1966. Differences between the statistics now published and those formerly published which implied exclusion of Aboriginal vital events cannot be taken as reliable statistics of births, deaths, or marriages among full-blood Aborigines, because in many areas no satisfactory administrative or other basis existed for distinguishing vital events of full-blood Aborigines from those of part-Aborigines of the rest of the population.

Statistics of divorce have been shown in the chapter on Law, Order and Public Safety in previous issues of this publication.

Birth, death and marriage rates for certain countries of the world are set out in International Vital Statistics at the end of this chapter.

Provisions for registration and compilation of statistics

In Australia, statistics of births, deaths and marriages are compiled from information supplied for the registration of the event. Each State and Territory has an independent system of registration. Provisions for the civil registration of births, deaths, and marriages have been in force in Tasmania from 1839, in Western Australia from 1841, in South Australia from 1842, in Victoria from 1853, and in New South Wales and Queensland (then part of New South Wales) from 1856. Registration in the Territories is administered by the Australian Government, registration having been taken over from South Australia in 1911 in respect of the Northern Territory and from New South Wales in 1930 in respect of the Australian Capital Territory. The authority responsible for the registration of births, deaths, and marriages occurring within his particular State or Territory is the Registrar-General (the Government Statist in Victoria) or the Principal Registrar.

The statistics of births, deaths and marriages in this chapter refer to events registered by the State and Territorial registrars during the year shown. There is usually an interval of at least several days between the occurrence and the registration of an event. As a result of the delay in registration some events occurring in one year are not registered until the following year. Events which are registered more than ten years after date of occurrence are excluded from the statistics.

For tables showing statistics of births, deaths and marriages for the States and Territories, figures are compiled from registrations of events which took place in each State and Territory. Some events take place in States other than the State in which the persons concerned (e.g. mother, deceased, bride/groom) usually resided. The effect of such interstate registrations on State totals however is slight. See page 179.

Statistics of divorce are compiled from petitions filed with and decrees granted by the Supreme Court of a State or Territory.

Marriages

The *Marriage Act* 1961–1966 came into operation on 1 September 1963, placing the marriage laws of all States, the mainland Territories and Norfolk Island on a uniform basis. Provision is made for the celebration of marriage by ministers of religion registered with the Registrar of Ministers of Religion appointed in each State and Territory by the Attorney-General, and by certain civil officers, in most cases district registrars. In each State or Territory the authorised celebrant is required to register particulars of the parties married with the appropriate registering authority as soon as practicable and in any case not later than fourteen days after the marriage.

The minimum marriageable age at which a person is legally free to marry is 18 years for males and 16 years for females. The marriage of a female between 16 and 18 years of age is not permissible without the consent of her parents or guardians or, where this is not obtainable of a magistrate or other prescribed authority. A judge or magistrate may, in exceptional circumstances, make an order authorising a male who has attained 16 years or a female who has attained 14 years to marry a person of marriageable age.

Numbers of marriages and crude marriage rates

MARRIAGES(a)									
Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1946–50	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
1951–55	28,483	20,007	10,171	6,290	5,232	2,539	146	234	73,102
1956–60	28,432	20,422	10,254	6,517	5,145	2,573	190	321	73,854
1961–65	31,788	23,262	11,437	7,514	5,768	2,700	248	533	83,250
1966–70	39,216	29,481	14,717	9,920	8,147	3,330	394	983	106,188
Annual total—									
1969	41,286	30,860	15,669	10,599	8,993	3,532	413	1,118	112,470
1970	42,928	31,729	16,082	10,864	9,227	3,535	501	1,200	116,066
1971	43,038	32,386	16,538	10,833	9,382	3,578	485	1,397	117,637
1972	41,520	31,206	16,066	10,829	9,120	3,426	490	1,372	114,029
1973	40,722	30,203	16,490	10,806	9,102	3,395	513	1,469	112,700

(a) Excludes particulars of full-blood Aborigines before 1966.

CRUDE MARRIAGE RATES(a)									
Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1946–50	9.90	9.72	9.41	9.87	10.01	9.56	9.39	9.36	9.77
1951–55	8.41	8.34	7.91	8.11	8.44	8.35	9.13	8.20	8.29
1956–60	7.70	7.50	7.14	7.26	7.36	7.69	8.63	7.51	7.50
1961–65	7.86	7.64	7.27	7.42	7.43	7.49	8.09	7.26	7.63
1966–70	8.96	8.84	8.49	8.82	8.87	8.76	5.81	8.68	8.81
Annual rate—									
1969	9.29	9.11	8.88	9.30	9.41	9.17	5.65	9.19	9.16
1970	9.48	9.20	8.96	9.38	9.28	9.11	6.32	9.10	9.26
1971	9.33	9.23	9.03	9.21	9.09	9.15	5.60	9.68	9.20
1972	8.89	8.78	8.58	9.10	8.63	8.71	5.26	8.67	8.78
1973	8.64	8.40	8.59	8.99	8.49	8.55	5.35	8.69	8.56

(a) Number of marriages per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1966.

Previous marital status

In most years about ninety per cent of grooms and brides are single at marriage, seven per cent divorced and three per cent widowed.

PREVIOUS MARITAL STATUS OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1973

<i>Previous marital status of bridegrooms</i>	<i>Previous marital status of brides</i>			<i>Total bridegrooms</i>
	<i>Spinsters</i>	<i>Widows</i>	<i>Divorced</i>	
Bachelors . . .	94,274	1,085	4,382	99,741
Widowers . . .	827	1,746	1,041	3,614
Divorced . . .	4,849	1,075	3,421	9,345
Total brides . . .	99,950	3,906	8,844	112,700

Age and previous marital status at marriage

There were 17,898 males under 21 years of age married during 1973, while the corresponding number of females was 50,433.

AGE AND PREVIOUS MARITAL STATUS OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1973

<i>Age at marriage (years)</i>	<i>Bridegrooms</i>				<i>Brides</i>			
	<i>Bachelors</i>	<i>Widowers</i>	<i>Divorced</i>	<i>Total</i>	<i>Spinsters</i>	<i>Widows</i>	<i>Divorced</i>	<i>Total</i>
Under 20 . . .	8,382	1	..	8,383	34,665	7	7	34,679
20-24 . . .	59,142	24	247	59,413	50,848	107	839	51,794
25-29 . . .	22,902	89	1,809	24,800	10,083	231	2,402	12,716
30-34 . . .	5,334	111	1,983	7,428	2,418	240	1,735	4,393
35-39 . . .	1,821	136	1,418	3,375	832	267	1,139	2,238
40-44 . . .	954	245	1,174	2,373	403	379	961	1,743
45-49 . . .	563	385	1,082	2,030	249	582	822	1,653
50-54 . . .	297	501	745	1,543	197	528	520	1,245
55-59 . . .	132	554	455	1,141	113	514	246	873
60-64 . . .	110	555	235	900	66	477	100	643
65 and over . . .	104	1,013	197	1,314	76	574	73	723
Total . . .	99,741	3,614	9,345	112,700	99,950	3,906	8,844	112,700

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1973

<i>Age of bridegroom (years)</i>	<i>Age of bride (years)</i>								<i>Total bridegrooms</i>
	<i>Under 15</i>	<i>15-19</i>	<i>20-24</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40-44</i>	<i>45 and over</i>	
Under 20 . . .	3	6,976	1,343	55	5	1	..	..	8,383
20-24 . . .	3	23,292	33,413	2,396	254	38	13	4	59,413
25-29 . . .	2	3,860	13,774	5,801	1,087	209	44	23	24,800
30-34 . . .	..	432	2,460	2,715	1,226	385	148	62	7,428
35-39 . . .	..	71	539	995	867	526	227	150	3,375
40-44 . . .	..	25	160	451	520	475	407	335	2,373
45-49 . . .	..	8	77	201	253	347	423	721	2,030
50-54 . . .	..	3	17	59	126	154	270	914	1,543
55-59 . . .	..	1	4	32	37	65	135	867	1,141
60-64 . . .	..	3	5	6	9	26	56	795	900
65 and over . . .	..	..	2	5	9	12	20	1,266	1,314
Total brides	8	34,671	51,794	12,716	4,393	2,238	1,743	5,137	112,700

The median age at marriage of brides and bridegrooms has declined during recent years. The median ages, in years, of brides for each of the five years to 1973 were: 1969, 21.54; 1970, 21.46; 1971, 21.39; 1972, 21.41 and 1973, 21.41. The median ages, in years, of bridegrooms were: 1969, 23.78; 1970, 23.74; 1971, 23.78; 1972, 23.80 and 1973, 23.85. The difference in the median age at marriage between brides and bridegrooms is generally about two years, the difference in 1973 being 2.44 years. The median age is the age at which half of the bridegrooms or brides were younger and half were older than that age. It gives a better indication of the most common age at marriage than the average age (mean).

Countries of birth of persons marrying

RELATIVE COUNTRIES OF BIRTH OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1973

Country of birth of bridegroom	Country of birth of bride										Total bridegrooms	
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Malta	Netherlands	Yugoslavia	Other European		Other and unspecified
Australia	75,090	470	4,998	577	83	289	210	632	104	506	1,333	84,292
New Zealand	974	119	120	15	..	5	3	14	2	11	54	1,317
United Kingdom and Ireland	7,032	127	2,223	117	10	44	52	107	25	114	325	10,176
Germany	1,117	23	133	157	6	9	5	23	20	74	75	1,642
Greece	309	3	23	9	1,293	10	5	5	15	11	98	1,781
Italy	1,296	8	119	31	14	1,438	31	16	20	48	85	3,106
Malta	372	3	52	5	..	9	283	6	2	3	8	743
Netherlands	1,120	9	136	19	..	7	6	151	..	25	44	1,517
Yugoslavia	340	7	42	21	16	25	11	9	1,291	59	27	1,848
Other European and unspecified	971	27	130	100	9	21	7	15	40	628	135	2,083
Total brides	90,508	838	8,271	1,093	1,500	1,895	625	1,015	1,545	1,580	3,830	112,700

Celebration of marriages

Marriages may be celebrated by a minister of religion registered as an authorised celebrant, by a district registrar or by other suitable persons authorised by the Attorney-General. Notice of the intended marriage must be given to the celebrant at least seven days before the marriage. Most of the marriages are celebrated by ministers of religion although the proportion of civil marriages has been increasing. The registered ministers in 1973 belonged to more than fifty different religious denominations.

MARRIAGES BY AUTHORISED CELEBRANTS: 1973

Category of authorised celebrant	Australia									Proportion of total	
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	No.		
Registered ministers of recognised religious denominations—											
Roman Catholic	11,152	8,775	4,288	2,089	2,268	696	115	441	29,824	26.5	
Church of England	11,207	6,197	3,784	1,867	2,435	1,265	65	316	27,136	24.1	
Methodist	4,352	2,740	2,419	2,347	973	466	46	58	13,401	11.9	
Presbyterian	3,480	4,212	2,081	309	490	148	46	114	10,880	9.7	
Orthodox	988	1,146	101	169	105	6	25	25	2,565	2.3	
Baptist	737	566	337	236	138	89	3	15	2,121	1.9	
Lutheran	160	275	419	596	42	5	13	16	1,526	1.4	
Churches of Christ	206	589	187	316	171	19	2	15	1,505	1.3	
Congregational	334	378	114	290	115	53	14	3	1,301	1.2	
Salvation Army	191	179	107	73	58	35	2	11	656	0.6	
Other	745	1,013	387	192	246	104	8	12	2,707	2.4	
Other authorised celebrants—											
Ministers of religion	211	206	59	55	34	2	..	9	576	0.5	
Civil officers	6,959	3,927	2,207	2,267	2,027	507	174	434	18,502	16.4	
Grand Total	40,722	30,203	16,490	10,806	9,102	3,395	513	1,469	112,700	100.0	
Proportion of total (per cent)—											
Ministers of religion	82.91	87.00	86.62	79.02	77.73	85.07	66.08	70.46	83.58	..	
Civil officers	17.09	13.00	13.38	20.98	22.27	14.93	33.92	29.54	16.42	..	

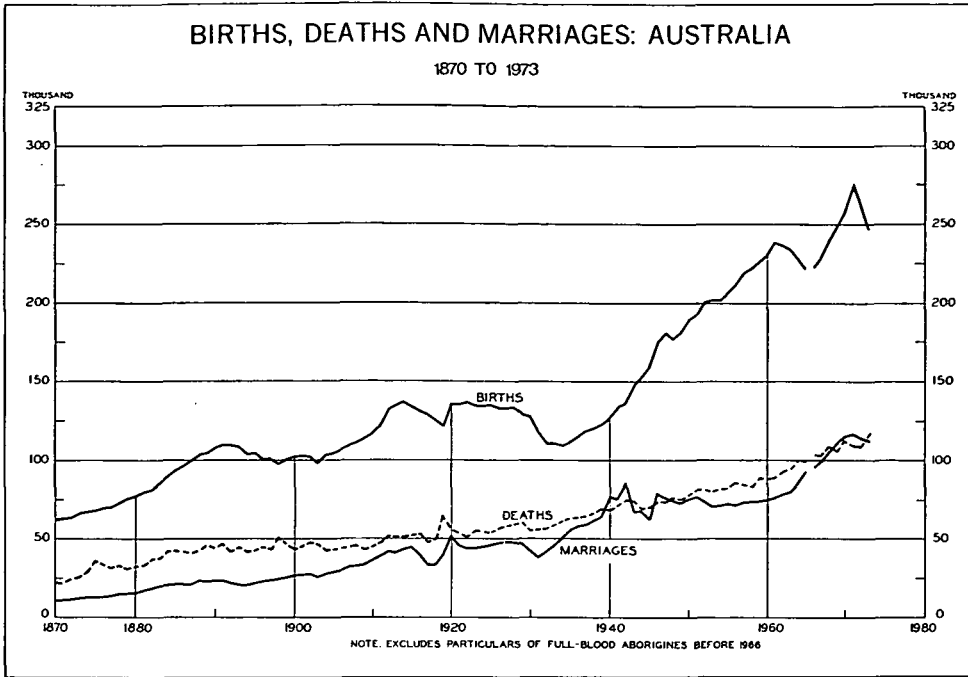


PLATE 25

Divorce and other matrimonial causes

The *Matrimonial Causes Act* 1959 came into operation on 1 February 1959, placing the divorce laws of all States and Territories on a uniform basis. Under this legislation a court may grant decrees of dissolution of marriage (divorce), nullity of marriage, judicial separation, restitution of conjugal rights, and jactitation of marriage (i.e., that a person should refrain from making a false claim that a marriage has taken place between him and another person). Orders may be made for maintenance, the custody and welfare of children, and settlement of property, and damages for adultery. The following statistics refer only to petitions for, and decrees of, dissolution, nullity, and judicial separation. A description of legislation governing divorce and other matrimonial causes in Australia is contained in Year Book No. 55, page 580.

Petitions filed

Statistics of petitions exclude cross-petitions contained in answers by respondents. The following table shows the number of petitions for dissolution of marriage, nullity of marriage, and judicial separation filed in each State and Territory during 1973.

PETITIONS FILED FOR DISSOLUTION, NULLITY, AND JUDICIAL SEPARATION, 1973

Petition for—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution—									
By husband	2,902	2,091	939	809	816	281	64	153	8,055
By wife	5,505	3,067	1,497	1,326	1,059	352	56	282	13,144
<i>Total</i>	8,407	5,158	2,436	2,135	1,875	633	120	435	21,199
Nullity—									
By husband	7	6	1	2	2	..	..	..	18
By wife	18	9	6	5	..	1	1	1	41
<i>Total</i>	25	15	7	7	2	1	1	1	59
Dissolution or nullity—									
By husband	2	1	1	2	..	..	..	..	6
By wife	2	5	..	3	..	..	..	..	10
<i>Total</i>	4	6	1	5	..	..	..	..	16
Judicial separation—									
By husband . . . .	..	..	..	..	1	..	..	..	1
By wife	10	1	7	12	2	1	..	..	33
<i>Total</i>	10	1	7	12	3	1	..	..	34
All petitions—									
By husband	No. 2,911	2,028	941	813	819	281	64	153	8,080
per cent	34	41	38	38	44	44	53	35	38
By wife	No. 5,535	3,082	1,510	1,346	1,061	354	57	283	13,228
per cent	66	59	62	62	56	56	47	65	62
Grand total	8,446	5,180	2,451	2,159	1,880	635	121	436	21,308

Decrees granted

Statistics of decrees granted refer to decrees *nisi* made absolute except for the following cases, where no decree *nisi* is granted.

- (i) Decrees of judicial separation, which do not dissolve the marriage and may be discharged on resumption of cohabitation.
- (ii) Decrees of nullity of void marriage, as distinct from nullity of voidable marriage. A void marriage is invalid because of failure to meet a legal requirement, and the original decree of nullity is final. A valid marriage is voidable on proof of one or more of the grounds set out in Section 21 of the *Matrimonial Causes Act 1959-1966*, e.g. that either party is incapable of consummating the marriage.

The following tables show the number of dissolutions of marriage, nullities of marriage, and judicial separations granted in each State and Territory during 1973 classified according to petitioner, and the grounds on which decrees were granted during the years 1969 to 1973.

DECREES FOR DISSOLUTION, NULLITY, AND JUDICIAL SEPARATION, 1973

Decree of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution—									
To husband	2,606	1,200	665	585	630	186	48	91	6,011
To wife	4,770	1,991	1,029	997	794	257	38	179	10,055
To both	20	9	..	..	..	..	..	..	29
<i>Total</i>	7,396	3,200	1,694	1,582	1,424	443	86	270	16,095
Nullity—									
To husband	10	1	..	2	2	..	..	2	17
To wife	24	10	4	4	2	1	..	1	46
<i>Total</i>	34	11	4	6	4	1	..	3	63
Judicial separation—									
To husband . . . .	..	..	..	..	..	..	..	..	..
To wife	4	1	2	..	..	..	..	..	7
<i>Total</i>	4	1	2	..	..	..	..	..	7
All decrees—									
To husband	No. 2,616	1,201	665	587	632	186	48	93	6,028
per cent	35	37	39	37	44	42	56	34	37
To wife	No. 4,798	2,002	1,035	1,001	796	258	38	180	10,108
per cent	65	62	61	63	56	58	44	66	63
To both	No. 20	9	..	..	..	..	..	..	29
Grand total	7,434	3,212	1,700	1,588	1,428	444	86	273	16,165

DECREES FOR DISSOLUTION, NULLITY, AND JUDICIAL SEPARATION, GROUNDS: AUSTRALIA

<i>Ground</i>	<i>1969</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>	<i>1973</i>
DISSOLUTION					
Single grounds—					
Desertion	4,730	5,098	5,076	5,814	5,891
Adultery	2,916	3,419	3,977	5,088	5,490
Separation	1,758	2,023	2,243	2,442	2,186
Cruelty	750	942	983	1,368	1,660
Drunkenness	136	142	165	203	224
Intoxication by drugs	4	5	4	5	3
Non-compliance with restitution decree	5	2	1	3	5
Refusal to consummate	32	42	29	39	41
Insanity	7	6	3	1	4
Frequent convictions	18	25	15	19	14
Imprisonment	3	3	8	7	5
Other single grounds	15	15	20	19	16
Dual grounds—					
Desertion and adultery	102	90	87	80	80
Desertion and separation	145	96	79	106	85
Desertion and cruelty	77	59	49	68	75
Desertion and drunkenness	8	14	10	10	14
Desertion and failure to pay maintenance	5	3	6	2	3
Desertion and other	4	7	5	3	5
Adultery and separation	3	4	3	7	5
Adultery and cruelty	16	17	14	26	22
Adultery and other	2	2	1	3	3
Separation and other	2	3	..	3	1
Cruelty and drunkenness	143	160	146	237	226
Cruelty and other	7	5	1	3	3
Other dual grounds	3	1	8	6	7
Three grounds or more	39	15	14	22	27
<i>Total</i>	<i>10,930</i>	<i>12,198</i>	<i>12,947</i>	<i>15,584</i>	<i>16,095</i>
NULLITY					
Bigamy	14	15	23	9	15
Invalid marriage	1	..	1	3	1
Incapacity to consummate	28	29	15	34	44
Other grounds	3	1	4	3	3
<i>Total</i>	<i>46</i>	<i>45</i>	<i>43</i>	<i>49</i>	<i>63</i>
JUDICIAL SEPARATION					
Desertion . . . . .	..	..	1	..	4
Adultery	1	3	2	2	2
Cruelty	5	..	5	1	..
Other grounds	2	3	4	..	1
<i>Total</i>	<i>8</i>	<i>6</i>	<i>12</i>	<i>3</i>	<i>7</i>
ALL DECREES					
Grand total	10,984	12,249	13,002	15,636	16,155

Divorced persons at each census, 1921 to 1971

The following table shows the number and proportion of divorced persons in Australia as recorded from returns supplied at each census from 1921 to 1971. A classification of divorced persons by ages for the censuses from 1891 to 1947 appeared in earlier issues of the Year Book (see No. 39, page 269). The number of divorced persons at the 1911 Census is shown in Year Book No. 58, page 453. Before 1911 no record was made of divorced persons in South Australia, so comparisons cannot be made prior to that date.

DIVORCED PERSONS AT CENSUS DATES: AUSTRALIA, 1921 TO 1971

Sex	Number							Number per 10,000 of males or females 15 years of age and over						
	1921	1933	1947	1954	1961	1966	1971	1921	1933	1947	1954	1961	1966	1971
Males . . .	4,233	10,298	25,052	32,389	38,640	42,908	61,479	23	42	89	100	105	105	136
Females . .	4,304	10,888	27,516	36,650	43,339	51,174	71,421	24	46	96	115	119	125	157

Births and fertility

Information concerning a birth is required to be supplied to the registration authority within 28 days in the Australian Capital Territory and the Northern Territory, and 60 days in the States.

Information is required in all States and Territories concerning what have been commonly known as 'stillbirths'. These are excluded from all the tables of births and deaths in this chapter and are included only in the special tables on stillbirths shown on pages 188-9.

Number of live births

Plate 25, page 175, compares the annual number of births, deaths and marriages. During the 1940s 1950s and 1960s annual births increased rapidly as fertility rose following the low birthrates of the depression years. The fall from 1961 to 1966 resulted from a steep decline in fertility. From 1966 to 1971 annual births rose as increasing numbers of young women reached marriageable age, but in 1972 and 1973 the numbers fell with a further decline in fertility.

LIVE BIRTHS(a)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1946-50 . . .	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
1951-55 . . .	73,737	53,770	30,983	18,045	15,724	7,774	468	922	201,423
1956-60 . . .	79,613	61,279	34,171	19,977	16,922	8,517	694	1,286	222,459
1961-65 . . .	82,896	65,193	35,357	21,377	16,861	8,439	897	1,932	232,952
1966-70 . . .	82,560	68,755	35,378	21,310	19,426	7,979	2,134	2,783	240,325
Annual total—									
1969 . . .	86,036	71,035	36,576	21,977	20,754	8,445	2,274	3,079	250,176
1970 . . .	88,448	73,019	37,530	22,617	21,618	8,185	2,624	3,475	257,516
1971 . . .	98,466	75,498	39,970	22,996	24,239	8,321	2,832	4,040	276,362
1972 . . .	95,278	71,807	39,251	21,844	22,177	7,824	2,722	4,066	264,969
1973 . . .	87,332	67,123	38,067	20,407	20,510	7,326	2,809	4,096	247,670

(a) Excludes particulars of full-blood Aborigines before 1966.

Masculinity of live births

There is a universal tendency for the number of male births to exceed female births usually by between 5 to 6 per cent. The masculinity of live births, is the number of males born for every 100 female births. When the number of births for which masculinity is being calculated is small (for example, totals for smaller States) considerable variation is shown. The following table shows the figures for Australia for each five year period from 1946 to 1970 and for each of the years 1969 to 1973.

MASCULINITY^(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA 1946-1973

	1946-50	1951-55	1956-60	1961-65	1966-70	1969	1970	1971	1972	1973
Total births	105.60	105.19	105.65	105.83	105.41	105.22	105.12	104.34	105.47	105.19
Ex-nuptial births	104.46	103.36	104.49	106.88	105.11	103.95	106.96	106.05	106.38	104.69

(a) Number of males born for every 100 female births. Excludes particulars of full-blood Aborigines before 1966.

Crude birth rates

The simplest method of measuring fertility is to relate the number of births to the mean population, which gives the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 181-3. The difference between the crude birth rate and the crude death rate is the rate of natural increase (the hatched area in plate 26, page 180). In the past 100 years the crude birth rate has shown a general downward trend. From 1967 to 1971 there was a small upward movement, as a consequence of the increasing number of young women from the postwar baby boom reaching maturity. There was again a decline after 1971.

CRUDE BIRTH RATES^(a)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rates—									
1946-50	22.60	22.51	24.69	24.41	25.24	26.71	23.77	37.92	23.39
1951-55	21.78	22.42	24.11	23.25	25.37	25.58	29.37	32.22	22.86
1956-60	21.55	22.52	23.80	22.27	24.20	25.45	31.49	30.10	22.59
1961-65	20.49	21.42	22.49	21.11	21.71	23.41	29.30	26.31	21.34
1966-70	18.87	20.63	20.41	18.94	21.14	21.00	31.49	24.60	19.95
Annual rates—									
1969	19.35	20.96	20.73	19.28	21.72	21.93	31.09	25.31	20.38
1970	19.52	21.16	20.90	19.52	21.74	21.09	33.09	26.36	20.55
1971	21.35	21.51	21.84	19.55	23.50	21.27	32.69	28.00	21.62
1972	20.39	20.20	20.95	18.37	20.99	19.90	29.23	25.68	20.39
1973	18.52	18.66	19.83	16.97	19.12	18.46	29.30	24.24	18.81

(a) Number of births per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1966.

The birth rates in the table above are based on *live births registered in the respective States and Territories*. Some confinements, however, take place in States other than the State in which the mother usually resides, particularly in areas near State borders. The variations thus caused in the birth rates for the States and Territories by *referring the birth registrations to the mother's usual residence* are shown by the following corrected rates for 1972—New South Wales, 20.46; Victoria, 20.17; Queensland, 20.84; South Australia, 18.29; Western Australia, 21.02; Tasmania, 20.00; Northern Territory, 30.16 and Australian Capital Territory, 25.23.

Fertility rates

Changes in the crude birth rate are in general indicative of changes in fertility. However they may result from changes in the proportion of women of childbearing age in the population. Changes in the proportion of such women who are married may also affect fertility and the crude birth rate.

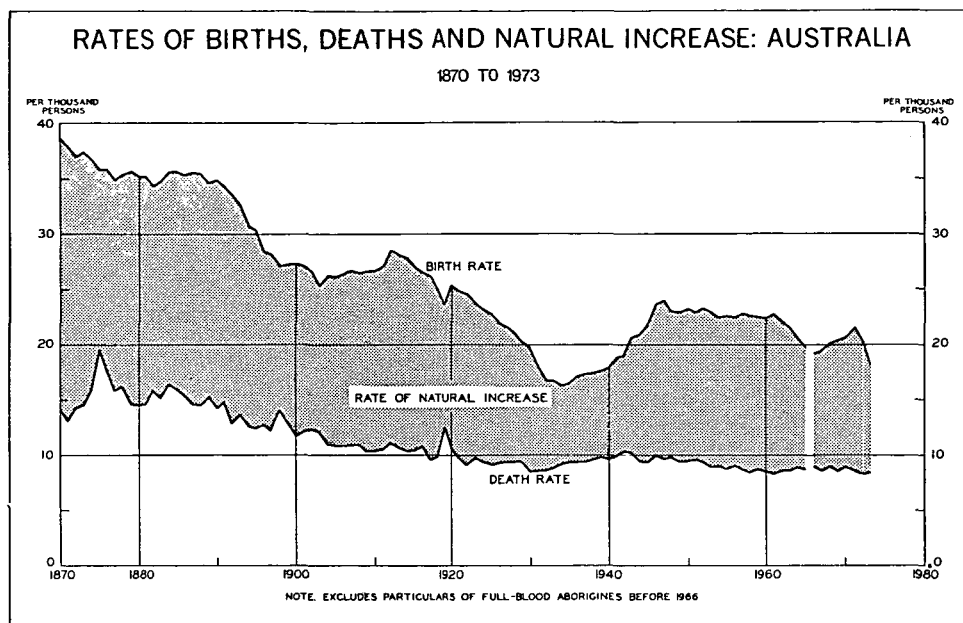


PLATE 26

The fertility rates in the following table are for the census years 1881 to 1971. The births for the three years around the census are related to women of childbearing age as enumerated at each census. Although the childbearing age has been taken to be 15-44 years, births to younger and older women are included in the computations. Nuptial births are related to married women aged 15-44 years to give married fertility rates.

Although married fertility fell by 58 per cent between 1880-82 and 1970-72, total fertility and the crude birth rate fell by only 41 per cent. The effect of a decline in the fertility of married women on total fertility and the crude birthrate is partly offset by an increase in the proportion of such women in the population. In 1881 only 51 per cent of females aged 15-44 were married but in 1966, 68 per cent were married. Also during this time births to unmarried women increased from 14 to 29 per thousand for single, widowed and divorced females aged 15-44.

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA, 1880-82 TO 1970-72(a)

Period	Average annual rates			Index Nos (Base: 1880-82=100)		
	Crude birth rate(b)	Fertility rates		Crude birth rate(b)	Fertility rates	
		Births per 1,000 women aged 15-44 years	Nuptial births per 1,000 married women aged 15-44 years		Births per 1,000 women aged 15-44 years	Nuptial births per 1,000 married women aged 15-44 years
1880-82	35.3	170	321	100	100	100
1890-92	34.5	159	332	98	94	103
1900-02	27.2	117	235	77	69	73
1910-12	27.2	117	236	77	69	74
1920-22	25.0	107	197	71	63	61
1932-34	16.7	71	131	47	42	41
1946-48	23.6	104	160	67	61	50
1953-55	22.7	109	149	64	64	46
1960-62	22.5	112	154	64	66	48
1965-67	19.5	95	132	55	56	41
1970-72	20.8	100	134	59	59	42

(a) Excludes particulars of full-blood Aborigines before 1965-67.

(b) Number of births per 1,000 of mean population.

Age-specific birth rates

Fertility within the childbearing group varies considerably, as may be seen from the five-year age-specific rates in the following table. These rates were obtained by dividing births according to age of mother by the estimated number of women in the corresponding five-year age group.

Total fertility is obtained by summing single age specific rates or by summing five-year age-specific rates and multiplying by 5. This total, divided by 1000, represents the hypothetical number of children a woman would bear during her lifetime if she experienced the rates of the year shown.

Since 1946, the fertility of younger women has increased, largely as a result of younger marriage, whereas fertility in the thirty and forty age groups has declined. Total fertility rose to a peak in 1961, of 3.4 children per woman, declined to 2.8 in 1967 and to 2.7 in 1972.

AGE-SPECIFIC BIRTH RATES(a): AUSTRALIA

Period	Age group (years)							Total fertility
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
1946-50(b)	33.05	164.22	183.29	126.56	72.33	22.71	1.76	3.020
1951-55(b)	39.54	192.81	192.97	123.51	65.05	20.50	1.53	3.180
1956-60(b)	44.20	216.42	211.47	126.06	63.91	18.96	1.45	3.412
1961-65(b)	46.50	203.95	207.15	122.38	59.18	17.54	1.19	3.289
1966-70(b)	49.32	172.65	187.64	103.00	46.85	12.86	0.99	2.867
1968	48.99	173.65	189.94	103.01	46.43	12.87	1.05	2.880
1969	49.16	173.88	190.99	103.13	45.19	12.10	1.01	2.877
1970	51.13	171.99	188.63	101.24	44.29	11.69	0.78	2.849
1971	55.50	181.87	193.50	101.78	44.15	11.31	0.78	2.944
1972	54.44	168.66	181.65	94.03	38.87	10.01	0.74	2.742

(a) Number of births per 1,000 women in each age group. Excludes particulars of full-blood Aborigines before 1966.
 (b) Average annual rates.

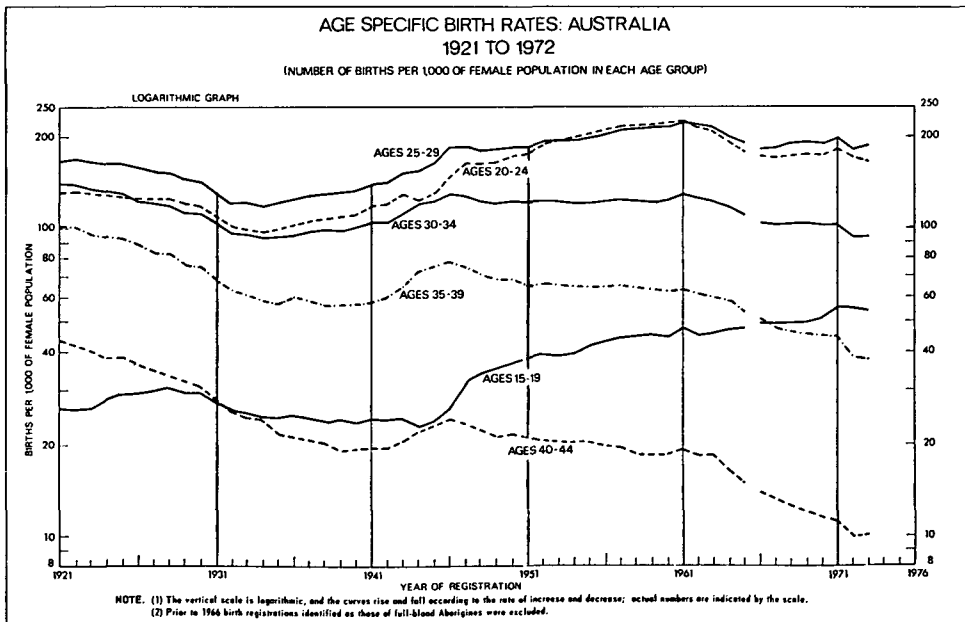


PLATE 27

Gross and net reproduction rates

The gross reproduction rate is derived from total fertility and the ratio of female to total births. It indicates the number of female children who would be born on average to women supposing the rates from which it was calculated were to apply throughout the reproductive period. It is an indication of the extent to which the population is reproducing itself except that it does not allow for females who failed to survive to the end of the childbearing period. The net reproduction rate allows for such mortality. It is obtained by multiplying the age-specific rates by the survivor proportions in the corresponding age group of the stationary or life table population. Mortality in childhood and young adulthood is now so low that there is little difference between current gross and net reproduction rates.

GROSS AND NET REPRODUCTION RATES(a): AUSTRALIA

Year	Gross reproduction rate		Year	Gross reproduction rate	
	Gross reproduction rate	Net reproduction rate		Gross reproduction rate	Net reproduction rate
1947	1.494	(b)1.416	1968	1.402	(e)1.359
1954	1.559	(c)1.499	1969	1.402	(e)1.359
1961	1.728	(d)1.672	1970	1.389	(e)1.347
1966	1.401	(e)1.357	1971	1.441	(e)1.397
1967	1.385	(e)1.342	1972	1.334	(e)1.294

(a) Excludes particulars of full-blood Aborigines before 1966. (b) 1946-1948 mortality experience used. (c) 1953-1955 mortality experience used. (d) 1960-1962 mortality experience used. (e) 1965-1967 mortality experience used.

In the following table a comparison is given of the gross and net reproduction rates recorded recently for various countries. The registration of vital events has not been fully established in many countries and consequently details for the calculation of reproduction rates for those countries are not available.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES

(Source: *Population Index*, April-June 1973, Office of Population Research, Princetown University)

Country	Period	Reproduction rate		Country	Period	Reproduction rate	
		Gross	Net			Gross	Net
Panama	1970	2.49	2.25	England and Wales	1971	1.16	1.13
Mauritius	1968	2.24	1.98	United States of America	1968	1.20	1.16
Taiwan	1970	1.94	1.84	Italy	1967	1.19	1.14
Ireland	1969	1.93	1.85	Yugoslavia	1969	1.17	1.09
Israel	1968	1.85	1.78	Canada	1971	1.05	1.03
Romania	1968	1.70	1.60	Germany, Dem. Rep.	1967	1.14	1.10
Chile	1967	1.89	1.66	Belgium	1969	1.09	1.06
Iceland	1967	1.59	1.55	Greece	1969	1.13	1.07
New Zealand	1970	1.49	1.45	Japan	1967	1.08	1.05
Australia	1971	1.44	1.40	Germany, Fed. Rep.	1969	1.07	1.03
Scotland	1968	1.35	1.30	Czechoslovakia	1970	1.01	0.97
Netherlands	1968	1.32	1.29	Denmark	1970	0.95	0.93
Norway	1971	1.22	1.19	Hungary	1969	0.98	0.93
Portugal	1967	1.39	1.25	Sweden	1970	0.94	0.92
France	1969	1.23	1.20	Finland	1969	0.90	0.86
Austria	1971	1.08	1.04				

Fertility of marriages

Estimates of the fertility of marriages may be made by relating nuptial births in each year to the marriages from which they could have resulted. Births to women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously and the resulting rates are added to give a total for all durations, namely, the index of current marriage fertility.

The figure for a particular year gives the estimated number of children which a thousand marriages would produce according to the fertility conditions of that year.

Births are omitted from the calculation if the marriage did not take place in Australia. Births which occur overseas to Australian marriages cannot be included and hence some understatement is present.

The following table gives an analysis of the index, shown in the total column, according to duration of marriage, expressing the results as births per thousand marriages.

DURATION-SPECIFIC FERTILITY RATES(a): AUSTRALIA

Births occurring in—	Duration of marriage (years)										Total
	Under 1	1	2	3	4	Total under 5	5-9	10-14	15-19	20 and over	
1960	382	322	317	288	249	1,558	772	302	100	25	2,757
1961	403	332	328	290	254	1,607	789	314	106	26	2,842
1962	389	318	324	290	247	1,568	781	308	101	22	2,780
1963	384	307	318	288	241	1,538	756	302	105	24	2,725
1964	368	288	296	275	231	1,458	712	283	99	21	2,573
1965	341	275	287	261	222	1,386	662	260	90	19	2,417
1966	324	258	282	260	215	1,339	633	238	84	19	2,318
1967	308	251	273	268	222	1,322	648	239	80	18	2,307
1968	308	247	280	267	235	1,337	668	234	79	17	2,335
1969	290	246	279	270	231	1,316	688	233	75	17	2,329
1970	278	236	275	262	231	1,282	675	230	75	16	2,278
1971	282	240	279	270	235	1,306	694	231	75	15	2,321
1972	257	220	260	258	225	1,220	638	203	64	15	2,140

(a) Number of births per thousand marriages. From 1966 includes births of Aborigines where parents were legally married and excludes births of tribal marriages.

The summation of duration-specific rates for a particular year without reference to changing patterns in age at marriage or age of parents contributes to the hypothetical nature of the index. It is more satisfactory, therefore, to express the rates in cohort form by following the experience of marriages of a particular year cumulated over successive durations of marriage.

Since the fertile period of a marriage has a duration of up to some thirty years, completed fertility can only be determined with certainty for marriages occurring before 1940. Fortunately, because of the concentration of births in the early years of marriage the ultimate level of fertility and the size of family can be assessed with a fair degree of precision by the end of the fifteenth year. The most recent cohort to reach this duration was that of 1957-58.

To determine the relevant marriage cohorts from which births can have derived, a system of quarterly weights is applied. Births in 1969 to marriages in their third year, for example, could have arisen from marriages in any one of the eight quarters of 1966 and 1967. Proportions of the marriages in each of these quarters, namely $\frac{1}{8}$, $\frac{2}{8}$, $\frac{3}{8}$, $\frac{4}{8}$, $\frac{5}{8}$, $\frac{6}{8}$, $\frac{7}{8}$, and $\frac{8}{8}$ respectively, are summed to arrive at the total marriages in the 1966-67 cohort. This method is applied to all marriages of completed durations three or more years. The first two years of marriage are weighted on a monthly basis.

CUMULATED DURATION-SPECIFIC FERTILITY RATES, MARRIAGE COHORTS(a), AUSTRALIA

Marriages of year—	Completed duration of marriage (years)						
	1	2	3	4	5	10	15
1955-56	352	674	983	1,262	1,511	2,262	2,497
1956-57	367	685	1,001	1,289	1,543	2,262	2,495
1957-58	365	684	1,001	1,291	1,538	2,219	2,441
1958-59	379	701	1,029	1,319	1,560	2,216	..
1959-60	382	714	1,038	1,326	1,557	2,210	..
1960-61	403	721	1,039	1,314	1,536	2,194	..
1961-62	389	696	992	1,253	1,468	2,125	..
1962-63	384	672	959	1,219	1,441	2,109	..
1963-64	368	643	925	1,193	1,428	..	..
1964-65	341	599	872	1,139	1,370	..	..
1965-66	324	575	855	1,125	1,356	..	..
1966-67	308	555	834	1,096	1,331	..	..
1967-68	308	554	829	1,099	1,324	..	..
1968-69	290	526	805	1,063	..	..	..
1969-70	278	518	778	..	..	..	..
1970-71	282	502	..	..	..	..	..
1971-72	257	..	..	..	..	..	..

(a) Cumulated number of births per thousand marriages. From 1966 includes births of Aborigines where parents were legally married and excludes births of tribal marriages.

A more detailed analysis of the figures in the above table and of earlier cohorts has been made by tabulating the number of births within each duration of marriage which were first, second, third or subsequent births to the marriages under consideration. Details then derived of relative family size at each duration of marriage have enabled the computation of duration-parity-specific fertility rates.

Ex-nuptial live births

A birth is registered as ex-nuptial if the parents were not married to one another at the time of the confinement. Births to tribally-married Aborigines are classified as nuptial. Ex-nuptial births have been increasing and in 1972 they comprised 9.68 per cent of all births. The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1972 and for Australia at intervals from 1946 to 1972 are shown in the following tables. The high ex-nuptial birth rate for the Northern Territory is due in part to difficulties in identifying births where parents were tribally married. It is suspected that a substantial number of ex-nuptial births for the Northern Territory are in fact births to women adhering to tribal marriage systems.

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, 1972

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number	9,766	5,001	5,185	1,803	2,632	695	356	221	25,659
Proportion of total births %	10.25	6.96	13.21	8.25	11.87	8.88	13.08	5.44	9.68

EX-NUPTIAL LIVE BIRTHS: NUMBERS, PROPORTION AND RATES(a): AUSTRALIA

	Annual average					1966-70	1968	1969	1970	1971	1972
	1946-50	1951-55	1956-60	1961-65							
Number	7,349	7,999	10,027	13,798	18,937	19,171	19,585	21,367	25,629	25,659	
Rates(b)	0.95	0.91	1.02	1.25	1.57	1.60	1.60	1.71	2.01	1.97	
Proportion of total births %	4.04	3.97	4.51	5.92	7.88	7.96	7.83	8.30	9.27	9.68	

(a) Excludes particulars of full-blood Aborigines before 1966.

(b) Number of ex-nuptial births per 1,000 of mean population.

A further measure of ex-nuptiality is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population aged from 15 to 44 years. On this basis, the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 44 is as follows: 1946-48, 11.45; 1953-55, 14.45; 1960-62, 18.49; 1965-67, 20.96; and 1970-72, 28.59. Ex-nuptial births to married women, which are not recorded separately, are included in these figures and it is not possible to determine to what extent they influence the trend shown.

Legitimations

Under the provisions of the Commonwealth *Marriage Act* 1961-1966, which came into operation on 1 September 1963, a child whose parents were not married to each other at the time of its birth becomes legitimised on the subsequent marriage of its parents. The legitimisation takes place whether or not there was a legal impediment to the marriage of the parents at the time of the child's birth and whether or not the child was still living at the time of the marriage, or in the case of a child born before 1 September 1963, at that date. Prior to the introduction of this Act, legitimations took place under Acts passed in the several States to legitimise children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who came within the scope of their purposes, born before or after the passing thereof, was deemed to be legitimate from birth by the post-natal union of its parents and entitled to the status of offspring born in wedlock. The number of children legitimised in Australia during 1972 was 3,800.

Multiple births

Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are stillborn the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live-born are registered as single births.

Number of confinements

The following table shows the number of single and multiple confinements and the number of live births. The table includes only those confinements resulting in at least one live birth.

LIVE BIRTHS AND CONFINEMENTS, 1972

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
LIVE BIRTHS									
Single births .	93,358	70,258	38,547	21,459	21,763	7,667	2,686	3,981	259,719
Twins	1,891	1,535	689	382	411	154	33	82	5,177
Other multiple .	29	14	15	3	3	3	3	3	73
Total	95,278	71,807	39,251	21,844	22,177	7,824	2,722	4,066	264,969
<i>Of which—</i>									
Males	48,928	36,842	20,128	11,299	11,337	3,935	1,433	2,107	136,009
Females . . .	46,350	34,965	19,123	10,545	10,840	3,889	1,289	1,959	128,960
STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE									
Twins	29	7	15	..	9	2	3	2	67
Other multiple .	2	1	..	..	..	..	..	..	3
CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE									
Nuptial	84,669	66,087	33,766	19,860	19,359	7,058	2,352	3,804	236,955
Ex-nuptial . . .	9,659	4,947	5,138	1,791	2,615	688	353	220	25,411
Total	94,328	71,034	38,904	21,651	21,974	7,746	2,705	4,024	262,366

NOTE. Owing to the registration procedure adopted in some States, it is possible that in some cases where one child only of a multiple pregnancy was liveborn, the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See *also* page 187.

Multiple births recorded during 1972 comprised 2,622 cases of twins, 24 cases of triplets, and one case of other multiple births the resulting number of live-born and stillborn children respectively 5,177 and 67 for twins, 70 and 2 for triplets, 3 and 1 for other multiple births. This represents an average of 9.99 recorded cases of twins and 0.09 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 100 mothers and mothers of triplets 1 in every 10,932. Total cases of multiple births represented 10.09 per 1,000 confinements or 1 in every 99 mothers.

Confinements—relative ages of parents

The relative ages of the parents of children whose births were registered in 1972 have been tabulated separately for total nuptial and ex-nuptial confinements and for nuptial multiple confinements in *Births, 1972* (4.4).

CONFINEMENTS, BY RELATIVE AGES OF PARENTS: AUSTRALIA, 1972

Age of father (years)	Age of mother (years)									Total
	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over	Not stated	
Under 20	6	3,771	580	14	2	..	..	..	1	4,374
20-24	7	12,901	33,847	3,537	191	21	4	1	..	50,509
25-29	3	2,479	38,590	42,979	3,195	254	24	4	1	87,529
30-34	3	387	7,216	28,827	16,655	1,423	94	3	1	54,609
35-39 . . . . .	..	87	1,294	6,199	10,845	5,460	431	11	..	24,327
40-44 . . . . .	..	14	302	1,347	3,352	4,163	1,561	41	2	10,782
45-49	2	16	95	337	727	1,212	981	130	..	3,500
50-54	1	4	30	93	185	247	242	38	..	840
55-59 . . . . .	..	4	12	33	62	74	48	18	..	251
60-64 . . . . .	..	4	1	15	17	19	18	5	..	79
65 and over(a)	5	29	44	15	24	14	14	4	6	155
Total nuptial	27	19,696	82,011	83,396	35,255	12,887	3,417	255	11	236,955
Total ex-nuptial . . .	146	10,366	7,908	3,846	1,858	958	288	28	13	25,411
Total	173	30,062	89,919	87,242	37,113	13,845	3,705	283	24	262,366

(a) Includes 110 confinements in which the age of the father was not stated.

Confinements—relative countries of birth of parents

The following table shows the relative countries of birth of parents of children whose births from nuptial confinements were registered during 1972.

**NUPTIAL CONFINEMENTS, BY RELATIVE COUNTRIES OF BIRTH OF PARENTS
AUSTRALIA, 1972**

Country of birth of father	Country of birth of mother											Total fathers
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Malta	Netherlands	Yugoslavia	Other European	Other and unspecified	
Australia	151,169	858	8,223	1,480	140	526	389	1,478	134	739	1,745	166,881
New Zealand	1,052	590	127	19	..	3	4	21	2	19	46	1,883
United Kingdom and Ireland	10,554	201	8,996	215	17	56	98	204	13	181	498	21,033
Germany	1,957	20	279	693	6	30	27	62	26	153	110	3,363
Greece	465	6	40	19	6,474	24	6	5	23	37	182	7,281
Italy	2,239	20	237	95	39	7,760	70	64	43	109	156	10,832
Malta	684	4	111	25	2	13	1,560	24	4	7	30	2,464
Netherlands	2,172	24	259	73	4	14	22	954	8	49	94	3,673
Yugoslavia	649	5	83	118	68	98	17	30	4,373	123	47	5,611
Other European	1,706	45	298	259	50	49	19	71	72	1,884	183	4,636
Other and unspecified	2,438	76	455	96	163	69	27	91	24	143	5,716	9,298
Total mothers	175,085	1,849	19,108	3,092	6,963	8,642	2,239	3,004	4,722	3,444	8,807	236,955

Confinements—age, duration of marriage and issue of mothers

The total number of nuptial confinements resulting in live births in 1972 was 236,955, comprising 234,563 single births, 2,370 cases of twins, 21 cases of triplets, one case of other multiple births. The following tables relating to previous issue exclude the issue of former marriages and stillborn children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the calculation of average issue shown.

The following table shows that in 1972 the average size of family increased fairly uniformly with the duration of the marriage. However, the average issue relates only to those women who gave birth in 1972. The table should not be interpreted to mean that, for example, *all* women who have been married for over ten years have an average of more than four children or those married twenty years, six children. The average issue of all married mothers who bore children in 1972 was 2.17 compared with 2.22 in 1971, 2.27 in 1970, 2.30 in 1969, and 2.34 in 1968.

**NUPTIAL CONFINEMENTS BY DURATION OF MARRIAGE, AND AVERAGE ISSUE OF MOTHERS
AUSTRALIA, 1972**

Duration of marriage	Total nuptial confinements	Average issue of mother
Under 1 year	30,696	1.03
1 year	27,537	1.23
2 years	31,655	1.54
3 "	30,337	1.79
4 "	25,021	2.05
5 "	19,966	2.32
6 "	16,285	2.60
7 "	12,413	2.88
8 "	9,353	3.16
9 "	7,055	3.40
10-14 years	18,553	4.00
15-19 "	5,999	5.11
20-24 "	1,368	6.45
25 years and over	101	7.68
Not stated	616	3.41
Total	236,955	2.17

**NUPTIAL CONFINEMENTS, BY AGE OF MOTHER AND PREVIOUS ISSUE
AUSTRALIA, 1972**

Previous issue	Age of mother (years)							45 and over	Not stated	Total married mothers
	Under 20	20-24	25-29	30-34	35-39	40-44				
0	16,246	43,163	24,936	5,407	1,567	330	29	5	91,683	
1	3,219	29,015	31,517	8,686	2,096	441	20	2	74,996	
2	242	7,715	17,963	9,901	2,712	537	21	1	39,092	
3	14	1,689	6,194	6,222	2,500	528	30	..	17,177	
4	2	347	1,887	2,853	1,567	435	29	2	7,122	
5 . . . . .	..	67	618	1,200	1,025	365	27	..	3,302
6 . . . . .	..	14	185	539	651	252	26	..	1,667
7 . . . . .	..	1	80	249	342	192	29	..	893
8 . . . . .	..	..	15	121	202	131	11	..	480
9 and over . . . . .	..	..	1	77	225	206	33	1	543
Total married mothers	19,723	82,011	83,396	35,255	12,887	3,417	255	11	236,955	

Multiple births—previous issue of mothers

Of married mothers of twins in 1972, 732 had no previous issue either living or dead, 767 had one child previously, 438 had two previous issue, 230 three, 100 four, 51 five, 26 six, 12 seven, 5 eight, and 9 had previous issue of nine or more. Of the 21 cases of nuptial triplets, and one case of other multiple births registered during 1972, 8 mothers had no previous issue, 6 had one, 1 had two, 4 had three and 3 had six previous issue.

Nuptial first births

A nuptial first birth is defined as the first birth to the existing marriage. About two-thirds of first births occur to women aged under 25, and over half occur within the first two years of marriage (in 1972, 35 per cent in the first and 24 per cent in the second year).

The following table shows the number of nuptial first births classified by grouped ages of mothers and grouped durations of marriage of mothers.

**NUPTIAL FIRST BIRTHS, BY AGE OF MOTHER AND DURATION OF MARRIAGE
AUSTRALIA, 1972**

Duration of marriage	Age of mother (years)							45 and over	Not stated	Total
	Under 20	20-24	25-29	30-34	35-39	40-44				
Under 8 months	11,807	7,649	1,322	422	126	35	4	1	21,366	
8 months	338	831	273	101	39	2	..	..	1,584
9 "	523	1,339	463	176	42	11	2	..	2,556	
10 "	443	1,252	434	135	58	7	..	..	2,329
11 "	383	1,167	395	146	50	11	1	..	2,153	
Total under 1 year	13,494	12,238	2,887	980	315	66	7	1	29,988	
1 year and under 2 years	2,230	13,408	4,417	1,151	391	79	5	..	21,681	
2 years " " 3 "	358	9,909	4,753	779	195	44	3	..	16,041	
3 " " " 4 "	48	5,166	4,651	580	140	28	3	..	10,616	
4 " " " 5 "	6	1,746	3,583	394	77	18	1	..	5,825	
5 " " " 10 "	1	656	4,563	1,158	225	35	4	1	6,643	
10 " " " 15 " . . . . .	..	1	69	339	126	23	2	..	560
15 years and over . . . . .	..	..	..	14	90	33	2	..	139
Not stated	109	39	13	12	8	4	2	3	190	
Total	16,246	43,163	24,936	5,407	1,567	330	29	5	91,683	

The following table shows for nuptial confinements, a comparison between the numbers of mothers having their first confinement and those having a subsequent confinement.

**NUPTIAL FIRST BIRTHS AND SUBSEQUENT CONFINEMENTS(a)
AUSTRALIA**

Period	Nuptial confinements			Proportion of first to total nuptial confinements (per cent)
	First	Other	Total	
Annual average—				
1946-50 . . .	63,413	109,044	172,457	36.77
1951-55 . . .	63,062	128,176	191,238	32.98
1956-60 . . .	65,695	144,352	210,047	31.28
1961-65 . . .	69,280	147,549	216,829	31.95
1966-70 . . .	81,103	138,000	219,103	37.02
Annual total—				
1968	81,341	138,124	219,465	37.06
1969	85,650	142,539	228,189	37.53
1970	88,412	145,227	233,639	37.84
1971	95,418	152,820	248,238	38.44
1972	91,683	145,272	236,955	38.69

(a) Excludes particulars of full-blood Aborigines before 1966.

Stillbirths

For 1972, statistics of stillbirths have been compiled on the basis of amended legislation which provides for all foetal deaths of at least twenty weeks gestation (or 400 grammes weight) to be registered. The dates on which the legislation came into effect for each State are as follows: New South Wales, January 1969; Victoria, May 1971; Queensland, October 1967; South Australia, January 1968; Western Australia, January 1968; Tasmania, March 1967; Northern Territory, September 1964; Australian Capital Territory, September 1969. Comparisons of the figures and rates prior to 1972 are affected by the differences in the definitions adopted by the various states.

STILLBIRTHS(a)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1946-50 . . .	1,405	949	626	368	274	161	n.a.	12	(b)3,795
1951-55 . . .	1,239	849	581	290	271	139	8	16	3,393
1956-60 . . .	1,253	839	558	274	235	109	6	19	3,293
1961-65 . . .	1,104	794	468	264	194	87	17	18	2,946
1966-70 . . .	876	767	341	215	192	86	(c)39	27	2,543
Annual total—									
1968	806	734	318	217	183	79	(c)39	26	2,402
1969	857	761	295	208	203	79	(c)35	26	2,464
1970	888	782	312	200	211	80	(c)30	29	2,532
1971	893	760	329	199	206	67	(c)24	41	2,519
1972	1,151	842	429	229	258	88	(c)44	48	3,089

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Excludes Northern Territory. (c) Figures from 1966 include foetal deaths occurring in remote localities for which the period of gestation was not known. The numbers of such cases were: 1968, 13; 1969, 13; 1970, 14; 1971, 3; 1972, 11. The Registration Ordinance requires registration of any foetal death of at least twenty weeks gestation.

PROPORTION OF STILLBIRTHS(a)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1946-50	20.0	19.6	21.9	22.1	20.5	22.3	n.a.	16.3	(b)20.5
1951-55	16.5	15.5	18.4	15.8	17.0	17.5	17.2	17.1	16.6
1956-60	15.5	13.5	16.1	13.5	13.7	12.6	8.6	14.3	14.6
1961-65	13.1	12.0	13.1	12.2	11.4	10.2	18.4	9.3	12.5
1966-70	10.5	11.0	9.5	10.0	9.8	10.7	18.3	9.7	10.5
Annual rate—									
1968	9.8	10.3	9.0	10.1	9.3	9.4	18.4	9.7	9.9
1969	9.9	10.6	8.0	9.4	9.7	9.3	15.2	8.4	9.8
1970	9.9	10.6	8.2	8.8	9.7	9.7	11.3	8.3	9.7
1971	9.0	10.0	8.2	8.6	8.4	7.9	8.4	10.0	9.0
1972	11.9	11.6	10.8	10.4	11.5	11.1	15.9	11.7	11.5

(a) Number of stillbirths per 1,000 of all births (live and still). Excludes particulars of full-blood Aborigines before 1966. (b) Excludes Northern Territory.

NOTE. Because of the smallness of the numbers of stillbirths occurring in the Australian Capital Territory and the Northern Territory the rates for these Territories are subject to considerable fluctuation.

Mortality

This section contains statistics of general mortality and infant mortality. Statistics of foetal deaths (stillbirths) are shown separately in the preceding section. For the registration of a death the period allowed is 8 days in Tasmania, 14 days in South Australia, Western Australia, Australian Capital Territory, and Northern Territory, 21 days in Victoria, and 30 days in New South Wales and Queensland.

Number of deaths

The following table shows the number of deaths registered in each State and Territory. Stillbirths, although registered as both births and deaths in some States are excluded from the death statistics.

DEATHS(a)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust
Annual average—									
1946-50(b)	29,552	21,827	10,357	6,507	4,802	2,459	76	103	75,683
1951-55	32,135	22,900	11,187	7,182	5,263	2,576	109	131	81,483
1956-60	34,002	24,254	12,008	7,732	5,523	2,668	117	184	86,488
1961-65	37,514	26,569	13,570	8,388	6,043	2,939	152	290	95,465
1966-70	41,249	29,265	15,711	9,562	7,208	3,231	540	497	107,263
Annual total—									
1969	40,665	28,976	15,786	9,337	7,350	3,309	485	588	106,496
1970	43,601	30,335	17,055	10,138	7,543	3,174	608	594	113,048
1971	41,691	30,598	16,339	9,686	7,806	3,295	637	598	110,650
1972	41,652	29,856	16,598	9,764	7,441	3,227	553	669	109,760
1973—									
Males	22,663	16,562	9,633	5,501	4,586	1,894	375	374	61,588
Females	18,459	14,134	7,099	4,334	3,259	1,453	205	291	49,234
Persons	41,122	30,696	16,732	9,835	7,845	3,347	580	665	110,882

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September 1939 to June 1947.

NOTE. Annual averages for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 597.

Crude death rates

The simplest method of measuring mortality is to relate the number of deaths for a given period to the mean population for that period, which gives the crude death rate. This rate for a given period measures the number per thousand of population by which the population is depleted through deaths during that period.

CRUDE DEATH RATES^(a)

<i>Period</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Average annual rate—									
1946–50 ^(b)	9.70	10.37	9.13	9.76	9.23	9.30	6.27	5.31	9.74
1951–55	9.49	9.55	8.71	9.25	8.49	8.48	6.86	4.58	9.25
1956–60	9.20	8.91	8.36	8.62	7.90	7.97	5.32	4.31	8.78
1961–65	9.27	8.73	8.63	8.28	7.78	8.15	4.95	3.94	8.75
1966–70	9.43	8.78	9.07	8.50	7.84	8.50	7.97	4.40	8.90
Annual rate—									
1969	9.15	8.55	8.95	8.19	7.69	8.59	6.63	4.83	8.68
1970	9.62	8.79	9.50	8.75	7.59	8.18	7.67	4.51	9.02
1971	9.04	8.72	8.93	8.23	7.57	8.42	7.37	4.15	8.66
1972	8.91	8.39	8.86	8.21	7.04	8.21	6.04	4.26	8.45
1973—									
Males	9.60	9.22	9.96	9.18	8.36	9.51	7.20	4.32	9.32
Females	7.84	7.85	7.46	7.18	6.22	7.35	4.68	3.53	7.51
Persons	8.72	8.53	8.72	8.18	7.31	8.43	6.05	3.93	8.42

(a) Number of deaths per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1966.
 (b) Excludes deaths of defence personnel, etc., from September 1939 to June 1947.

A graph showing the crude death rate for each year from 1870 to 1973 is shown on plate 26 page 180.

The crude death rate is affected by the particular sex and age composition of the population. While it is an element in the rate of natural increase of the population it cannot validly be used to compare the relative incidence of mortality in different populations. The crude death rate will tend to be low if the community contains a large proportion of young people and high if the population is elderly. Age specific death rates and true death rates are a guide to comparative mortality.

True death rates

A composite measure of mortality unaffected by the age structure of the population can be obtained from life tables. The basic life table functions include expectation of life remaining at each year of age. The reciprocal of the expectation of life at birth is known as the true death rate, since, if the expectation of life of a person at birth is say, fifty years, then each person will on the average die fifty years after birth, so that in a stationary population one person in fifty or twenty per thousand, will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of mortality from each year of age to the next. The next table sets out true death rates for the periods covered by Australian life tables.

TRUE DEATH RATES: AUSTRALIA

Period	True death rate(a)	
	Males(b)	Females(c)
1946-48	15.14	14.16
1953-55	14.89	13.75
1960-62	14.72	13.48
1965-67	14.79	13.49
1968	14.82	13.48
1969	14.81	13.40
1970	14.84	13.49
1971	14.72	13.42
1972	14.66	13.34

(a) Excludes particulars of full-blood Aborigines before 1965-67. (b) Number of deaths per 1,000 males in stationary population. (c) Number of deaths per 1,000 females in stationary population.

The crude death rates and the true death rates of Australia and the more populous countries of the world for the latest available year are shown in the table in International Vital Statistics at the end of this chapter.

Australian Life Tables

It has been the practice at each census from 1911 onwards to prepare complete life tables representative of the mortality experience of Australia. The mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated in 1911 by the Commonwealth Statistician. Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881-90, 1891-1900 and 1901-10. These compilations furnished a comprehensive view of Australian mortality in respect of sex, time, and geographical distribution, and practically superseded all life tables prepared in Australia prior to 1911. For subsequent censuses the official life tables have been prepared only for Australia as a whole. They have been based upon recorded census population and the deaths of the three years around the census. The 1965-67 life tables included particulars of Aborigines for the first time. The 1920-22 life tables were prepared by the Commonwealth Statistician, those of 1932-34, 1946-48, 1953-55, 1960-62 and 1965-67 by the Commonwealth Actuary. Full particulars of the data used and the methods of construction are to be found in the reports of the Commonwealth Actuary.

COMPLETE EXPECTATION OF LIFE (e_x^0) AT SELECTED AGES

Age (x)	Males				Females			
	1901-10	1953-55	1960-62	1965-67(a)	1901-10	1953-55	1960-62	1965-67(a)
0	55.20	67.14	67.92	67.63	58.84	72.75	74.18	74.15
10	53.53	59.53	59.93	59.50	56.38	64.78	65.92	65.75
20	44.74	50.10	50.40	49.98	47.52	55.06	56.16	56.00
30	36.52	40.90	41.12	40.72	39.33	45.43	46.49	46.34
40	28.56	31.65	31.84	31.44	31.47	35.99	36.99	36.85
50	21.16	22.92	23.13	22.76	23.69	27.03	27.92	27.83
60	14.35	15.47	15.60	15.27	16.20	18.78	19.51	19.52
70	8.67	9.59	9.77	9.52	9.96	11.62	12.19	12.23
80	4.96	5.47	5.57	5.51	5.73	6.30	6.68	6.72

(a) Includes particulars of full-blood Aborigines.

NOTE. e_x^0 = complete expectation of life at specified ages.

The progress towards lower mortality rates evident over the past sixty years or more, did not continue in the 1960s. Expectation of life at birth was slightly less in 1965-67 than in 1960-62 for both males and females. The detailed 1965-67 life tables show that lower mortality rates were experienced only at ages 0-14, 28-32 and over 88 for males and at ages 0-13 and over 72 for females.

Age distribution at death

Age at death is recorded for statistical purposes in days for the first week of life, in weeks for the first four weeks, in months for the first year and in completed years of life thereafter. These ages are usually combined in groups for publication, the most common being weeks for the first four weeks, months or groups of months for the first year, single years of age for the first five years, and thereafter the five-year groups 5-9 years, 10-14 years, etc. A summary in this form is given for Australia in the following table.

DEATHS, BY AGE AT DEATH AND SEX: AUSTRALIA, 1972

<i>Age at death</i>	<i>Males</i>	<i>Fe- males</i>	<i>Per- sons</i>	<i>Age at death</i>	<i>Males</i>	<i>Fe- males</i>	<i>Per- sons</i>
Under 1 week	1,704	1,174	2,878	5-9 years	272	192	464
1 week and under 2 weeks	66	75	141	10-14 "	261	158	419
2 weeks and under 3 weeks	46	43	89	15-19 "	860	305	1,165
3 weeks and under 4 weeks	33	34	67	20-24 "	968	315	1,283
<i>Total under 4 weeks</i>	<i>1,849</i>	<i>1,326</i>	<i>3,175</i>	25-29 "	646	299	945
4 weeks and under 3 months	269	187	456	30-34 "	613	348	961
3 months and under 6 months	267	183	450	35-39 "	834	465	1,299
6 months and under 12 months	192	157	349	40-44 "	1,396	810	2,206
<i>Total under 1 year</i>	<i>2,577</i>	<i>1,853</i>	<i>4,430</i>	45-49 "	2,436	1,353	3,789
1 year	198	165	363	50-54 "	3,333	1,860	5,193
2 years	129	87	216	55-59 "	4,927	2,568	7,495
3 "	104	60	164	60-64 "	6,734	3,343	10,077
4 "	74	66	140	65-69 "	7,694	4,256	11,950
<i>Total under 5 years</i>	<i>3,082</i>	<i>2,231</i>	<i>5,313</i>	70-74 "	8,233	5,859	14,092
				75-79 "	7,524	7,433	14,957
				80-84 "	6,272	7,962	14,234
				85 years and over	5,022	8,885	13,907
				Age not stated	9	2	11
				<i>Total all ages</i>	<i>61,116</i>	<i>48,644</i>	<i>109,760</i>

There are different mortality rates at various stages of life, and the actual number of deaths in any period is related to the numbers living at the respective stages. Changes in the number of deaths from one period to another are associated with changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups. The combined effect of various influences, i.e. the decline in the rate of mortality, the long term decline in the birthrate, and the effects of past and present migration on the age distribution of the population, is shown in the following table, which shows the proportion of deaths in various age groups in five-year periods and for the latest available year.

PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA
(Per cent)

<i>Age at death (years)</i>						1972		
	1946-50	1951-55	1956-60	1961-65	1966-70	<i>Males</i>	<i>Females</i>	<i>Persons</i>
Under 1 year	6.48	5.77	5.41	4.74	4.06	4.22	3.81	4.04
1-4 years	1.46	1.48	1.19	0.96	0.81	0.83	0.78	0.80
5-19 "	1.89	1.85	1.76	1.76	1.83	2.28	1.35	1.87
20-39 "	5.69	5.18	4.64	4.26	4.12	5.01	2.93	4.09
40-59 "	18.72	17.54	17.02	17.28	17.37	19.79	13.55	17.02
60-64 "	9.61	9.63	8.75	8.74	8.87	11.02	6.87	9.18
65 and over	56.12	58.52	61.20	62.24	62.92	56.85	70.71	62.99
Age not stated	0.03	0.03	0.03	0.02	0.02	0.01	0.00	0.01
<i>Total</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>

(a) Excludes particulars of full-blood Aborigines before 1966.

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in Year Book No. 39, page 614.

Age-specific death rates

In previous issues of the Year Book, average annual age-specific death rates, i.e. the average number of deaths per 1,000 of population in each age group, were given for each State and Australia for the periods 1932-1934, 1946-1948, 1953-1955, 1960-1962 and 1965-1967 (see Year Books, No. 37, pp. 778-9, No. 39, pp. 615-6, No. 44, pp. 640-1, No. 52, p. 253, and No. 55, p. 189). These rates were based on the age distribution of the population at the relevant censuses.

AGE-SPECIFIC DEATH RATES(a): 1972

Age group (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(b)
MALES							
Under 1(c)	20.10	15.98	19.80	18.72	17.61	20.29	18.93
1-4	0.94	0.95	1.07	1.07	0.95	1.05	0.99
5-9	0.46	0.42	0.43	0.44	0.45	0.40	0.44
10-14	0.37	0.41	0.49	0.45	0.44	0.28	0.41
15-19	1.37	1.32	1.88	1.34	1.49	2.36	1.47
20-24	1.65	1.61	2.14	1.43	1.70	1.88	1.72
25-29	1.34	1.03	1.51	1.17	1.31	1.74	1.26
30-34	1.41	1.19	1.73	1.26	1.65	2.47	1.44
35-39	2.23	2.11	2.59	1.77	2.15	1.58	2.19
40-44	3.47	3.41	3.97	3.34	2.72	2.96	3.46
45-49	6.69	5.87	6.19	5.63	5.17	4.42	6.14
50-54	10.06	9.29	10.90	9.47	7.72	9.06	9.70
55-59	17.01	16.15	16.89	15.65	14.52	15.26	16.36
60-64	29.06	25.67	27.23	25.22	24.59	26.44	27.08
65-69	41.91	41.40	39.54	42.03	37.75	43.14	41.11
70-74	67.98	66.34	59.63	59.91	61.83	65.12	64.94
75-79	105.69	103.11	90.22	97.90	93.78	90.74	100.29
80-84	150.97	152.32	135.45	141.03	145.20	143.29	147.14
85 and over	246.26	249.00	211.11	238.34	252.34	204.91	239.04
FEMALES							
Under 1(c)	14.66	12.72	15.36	14.47	12.66	11.69	14.38
1-4	0.70	0.59	0.93	0.60	1.09	1.16	0.77
5-9	0.30	0.34	0.41	0.35	0.28	0.37	0.33
10-14	0.26	0.20	0.37	0.33	0.25	0.20	0.26
15-19	0.57	0.56	0.61	0.57	0.49	0.38	0.55
20-24	0.54	0.62	0.80	0.33	0.56	0.52	0.59
25-29	0.58	0.64	0.68	0.56	0.43	1.04	0.62
30-34	0.90	0.79	1.05	0.86	0.81	0.61	0.87
35-39	1.42	1.00	1.42	0.98	1.45	1.54	1.29
40-44	2.34	2.04	2.51	1.66	1.61	2.69	2.16
45-49	3.79	3.25	4.12	3.01	3.12	3.28	3.56
50-54	5.97	5.21	5.59	4.38	4.83	4.87	5.47
55-59	8.54	8.38	8.65	8.25	6.99	8.64	8.40
60-64	13.11	12.99	12.38	11.43	11.57	12.36	12.68
65-69	21.41	20.73	19.42	18.45	18.34	19.48	20.34
70-74	36.07	35.01	33.18	30.70	30.93	39.38	34.65
75-79	62.19	60.26	55.90	54.68	58.63	57.31	59.64
80-84	103.35	106.06	99.40	94.68	95.75	106.76	102.28
85 and over	190.27	194.10	184.83	178.92	181.42	200.75	188.82

(a) Number of deaths per 1,000 of population in each age group. (b) Includes the Australian Capital Territory and the Northern Territory. (c) Infant deaths per 1,000 live births registered.

AGE-SPECIFIC DEATH RATES(a)(b): AUSTRALIA

Age group (years)	1946-48 (c)	1953-55 (c)	1960-62 (c)	1965-67 (c)	1970-72 (c)	1969	1970	1971	1972
MALES									
Under 1(d)	31.71	25.18	22.36	20.85	19.50	20.14	20.60	19.02	18.93
1-4	2.09	1.69	1.15	1.08	1.00	0.95	1.07	0.94	0.99
5-9	0.92	0.67	0.52	0.45	0.46	0.48	0.47	0.47	0.44
10-14	0.77	0.63	0.48	0.46	0.42	0.48	0.40	0.46	0.41
15-19	1.41	1.51	1.23	1.33	1.54	1.33	1.52	1.58	1.47
20-24	1.73	1.82	1.62	1.67	1.83	1.70	1.88	1.88	1.72
25-29	1.69	1.68	1.49	1.48	1.39	1.48	1.43	1.47	1.26
30-34	2.02	1.79	1.69	1.64	1.52	1.65	1.56	1.59	1.44
35-39	2.66	2.40	2.26	2.45	2.29	2.35	2.37	2.34	2.19
40-44	4.12	3.64	3.67	3.82	3.49	3.75	3.65	3.37	3.46
45-49	6.86	6.01	5.96	6.14	6.08	6.43	6.19	6.12	6.14
50-54	11.39	10.44	10.01	10.45	10.05	10.31	10.60	10.02	9.70
55-59	17.58	17.03	16.57	16.96	16.80	17.08	17.39	16.81	16.36
60-64	27.43	26.58	26.44	27.59	27.13	27.33	27.94	26.44	27.08
65-69	42.42	41.28	41.68	43.66	42.72	43.69	45.52	41.98	41.11
70-74	63.69	64.53	63.04	66.84	65.21	65.18	67.67	64.76	64.94
75-79	99.65	98.77	94.43	99.77	102.26	101.97	107.13	100.60	100.29
80-84	149.31	145.88	141.83	146.95	148.51	139.85	153.27	147.97	147.14
85 and over	253.48	248.14	243.69	241.98	239.96	239.80	244.46	240.49	239.04
FEMALES									
Under 1(d)	24.96	19.88	17.57	16.35	14.96	15.57	15.02	15.48	14.38
1-4	1.72	1.35	1.08	1.14	0.79	0.87	0.80	0.79	0.77
5-9	0.64	0.50	0.38	0.34	0.33	0.36	0.34	0.32	0.33
10-14	0.52	0.37	0.29	0.27	0.27	0.25	0.33	0.22	0.26
15-19	0.70	0.58	0.50	0.54	0.61	0.58	0.58	0.68	0.55
20-24	1.08	0.67	0.60	0.63	0.59	0.54	0.56	0.65	0.59
25-29	1.50	0.83	0.71	0.72	0.66	0.68	0.69	0.67	0.62
30-34	1.77	1.11	0.95	0.98	0.91	0.79	0.92	0.95	0.87
35-39	2.42	1.74	1.47	1.54	1.43	1.37	1.66	1.38	1.29
40-44	3.31	2.55	2.26	2.31	2.23	2.23	2.31	2.26	2.16
45-49	4.92	4.19	3.65	3.86	3.64	3.52	3.63	3.79	3.56
50-54	7.63	6.43	5.55	5.87	5.59	5.91	5.85	5.54	5.47
55-59	10.46	9.25	8.14	8.67	8.51	8.39	8.77	8.47	8.40
60-64	16.52	14.75	13.31	13.56	13.15	13.19	13.96	13.04	12.68
65-69	26.17	23.89	21.99	21.94	21.29	21.99	22.39	20.50	20.34
70-74	45.84	40.93	37.14	37.47	36.12	35.59	35.76	36.65	34.65
75-79	75.14	69.72	63.18	62.37	62.35	62.69	64.78	62.62	59.64
80-84	123.46	117.36	105.10	107.93	103.78	99.20	108.01	103.65	102.28
85 and over	222.12	213.69	210.20	119.73	194.37	191.75	198.59	197.22	188.82

(a) Number of deaths per 1,000 of population of the same age group and sex. The populations used in the calculation of these rates are based on census populations at 30 June 1947, 1954, 1961, 1966 and 1971. (b) Excludes particulars of full-blood Aborigines prior to 1965. (c) Average annual rate per 1,000 of census population, based on deaths in the three year period, i.e. census year and the years preceding and following it. (d) Infant deaths per 1,000 live births registered.

Infant deaths and death rates—States and Territories

The next table shows for each State and Territory the number of deaths under one year of age and the rates of infant mortality under one year. Rates for Australia and the more populous countries of the world for the latest available year are shown in the table International Vital Statistics at the end of this Chapter.

INFANT MORTALITY UNDER ONE YEAR(a)

<i>Period</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Annual average—									
1946-50	1,990	1,129	770	431	370	187	11	14	4,902
1951-55	1,852	1,113	730	407	384	184	17	14	4,701
1956-60	1,770	1,205	717	410	362	176	25	18	4,683
1961-65	1,685	1,168	696	408	350	156	28	34	4,524
1966-70	1,567	1,071	669	354	393	127	117	51	4,349
Annual total—									
1969	1,625	1,066	691	347	453	139	103	58	4,482
1970	1,743	1,060	672	367	459	116	126	61	4,604
1971	1,710	1,107	766	366	464	114	170	80	4,777
1972	1,663	1,048	697	367	348	127	113	67	4,430
1973	1,491	958	666	276	394	137	100	63	4,085
Annual average rate(b)—									
1946-50	28.91	23.82	27.49	26.50	28.15	26.53	37.37	19.89	26.98
1951-55	25.11	20.70	23.58	22.55	24.41	23.67	36.28	15.40	23.34
1956-60	22.24	19.67	20.99	20.50	21.42	20.62	36.00	13.68	21.05
1961-65	20.32	17.92	19.69	19.07	20.73	18.46	30.76	17.80	19.42
1966-70	18.99	15.57	18.90	16.60	20.25	15.94	54.91	18.25	18.10
Annual rate(b)—									
1969	18.89	15.01	18.89	15.79	21.83	16.46	45.29	18.84	17.92
1970	19.71	14.52	17.91	16.23	21.23	14.17	48.02	17.55	17.88
1971	17.37	14.66	19.16	15.92	19.14	13.70	60.03	19.80	17.29
1972	17.45	14.59	17.76	16.80	15.69	16.23	41.51	16.48	16.72
1973	17.07	14.27	17.50	13.52	19.21	18.70	35.60	15.83	16.49

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Number of deaths of children aged under one year per 1,000 live births registered.

Because of the smallness of the numbers of these deaths occurring in the Australian Capital Territory and the Northern Territory, the rates for these Territories (i.e. number of such deaths per thousand live births) are subject to considerable fluctuation.

Infant deaths and death rates—Australia

The fact that out of 660,993 male infants born from 1968 to 1972, 13,015 (19.69 per 1,000) died during the first year of life, while of 628,936 female infants only 9,561 (15.20 per 1,000) died during the first year, accords with the universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.

As shown by the following table, the disparity is greater during the first four weeks of life, termed the neonatal period, than during the remainder of the first year of life, or the post-neonatal period.

INFANT DEATHS AND MORTALITY RATES(a): AUSTRALIA

Period	Age at death											Total under one year			
	Days		Total under one week	Weeks			Total under four weeks	Months				Males	Fe-males	Persons	
	Under	1-6		1	2	3		1-2 (h)	3-5	6-8	9-11				
	1	1-6	1	2	3	1-2 (h)	3-5	6-8	9-11	Males	Fe-males	Persons			
Annual average—															
1946-50	1,717	1,297	3,014	259	138	103	3,514	404	415	318	251	2,808	2,094	4,902	
1951-55	1,631	1,250	2,881	237	109	86	3,313	396	431	316	245	2,683	2,018	4,701	
1956-60	1,737	1,195	2,932	221	116	84	3,353	398	457	271	204	2,662	2,021	4,683	
1961-65	1,709	1,187	2,896	191	102	71	3,260	426	417	245	176	2,596	1,928	4,524	
1966-70	1,696	1,125	2,821	160	88	72	3,141	407	420	226	155	2,515	1,834	4,349	
Annual total—															
1968	1,768	1,050	2,818	146	70	72	3,106	408	394	221	154	2,452	1,831	4,283	
1969	1,755	1,151	2,906	155	110	69	3,240	407	432	241	162	2,584	1,898	4,482	
1970	1,857	1,150	3,007	160	90	71	3,328	459	454	215	148	2,718	1,886	4,604	
1971	1,907	1,121	3,028	177	85	74	3,364	488	494	250	181	2,684	2,093	4,777	
1972	1,924	954	2,878	141	89	67	3,175	456	450	223	126	2,577	1,853	4,430	
Annual average rate(c)—															
1946-50	9.45	7.14	16.59	1.43	0.76	0.56	19.34	2.22	2.29	1.75	1.38	30.08	23.70	26.98	
1951-55	8.09	6.20	14.29	1.18	0.54	0.43	16.44	1.97	2.14	1.57	1.22	25.99	20.56	23.34	
1956-60	7.81	5.37	13.18	0.99	0.52	0.38	15.07	1.79	2.06	1.22	0.92	23.29	18.69	21.05	
1961-65	7.34	5.09	12.43	0.82	0.44	0.30	13.99	1.83	1.79	1.05	0.76	21.67	17.03	19.42	
1966-70	7.06	4.68	11.74	0.66	0.37	0.30	13.07	1.69	1.75	0.94	0.65	20.40	15.67	18.10	
Annual rate(c)—															
1968	7.34	4.36	11.70	0.60	0.29	0.30	12.89	1.69	1.64	0.92	0.64	19.83	15.61	17.78	
1969	7.02	4.60	11.62	0.61	0.44	0.28	12.95	1.63	1.73	0.96	0.65	20.14	15.57	17.92	
1970	7.21	4.47	11.68	0.62	0.35	0.27	12.92	1.78	1.76	0.84	0.58	20.60	15.02	17.88	
1971	6.90	4.06	10.96	0.64	0.31	0.27	12.17	1.77	1.78	0.90	0.65	19.02	15.48	17.29	
1972	7.26	3.60	10.86	0.53	0.34	0.25	11.98	1.72	1.70	0.84	0.48	18.95	14.37	16.72	

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Age four weeks and under three months. (c) Number of deaths of children aged under one year per 1,000 live births registered.

Plate 28 below, shows infant mortality rates for each year from 1910 to 1972.

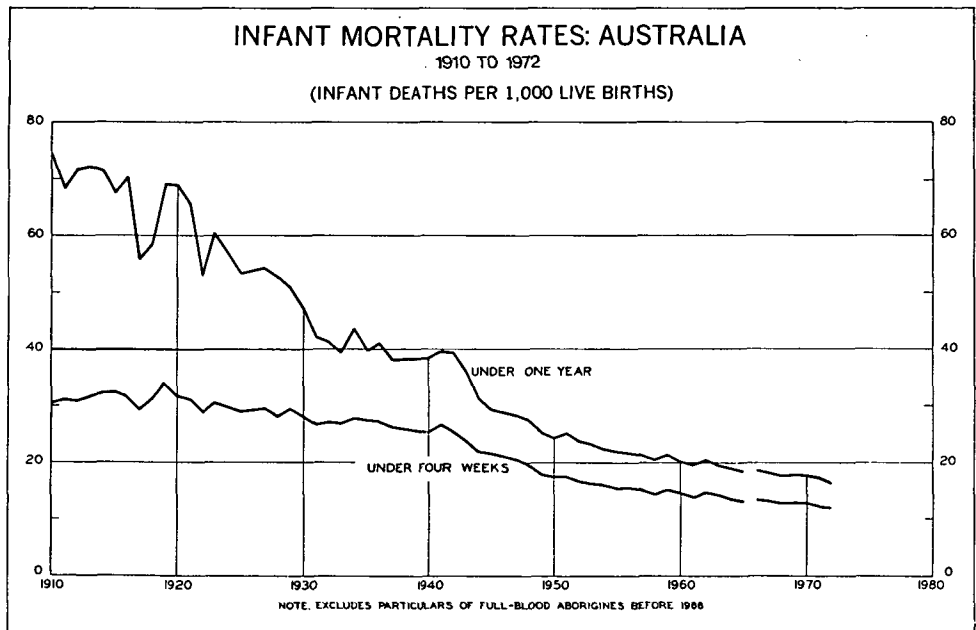


PLATE 28

Causes of death

Causes of death in Australia are classified according to the International Classification of Diseases (I.C.D.) produced by the World Health Organization. The classification is periodically revised and in Australia the Eighth Revision was adopted for use from 1968. Hence, cause of death figures for 1968 and subsequent years are not strictly comparable, for some causes with those for 1967 and earlier years.

The following two tables show the number of deaths in 1972 according to the Abbreviated List of 50 causes for tabulation of mortality recommended by W.H.O. with some large categories sub-divided to show further details. Table A shows the total number of males and females who died, the death rates per million of mean population, and the percentage of total deaths. Table B shows deaths for males and females, classified by age groups. More detailed data on causes of death will be found in the bulletin *Causes of Death* (4.7), No. 9.

A. CAUSES OF DEATH: NUMBERS, PROPORTIONS AND CRUDE RATES(a), MALES AND FEMALES, AUSTRALIA, 1972

ABBREVIATED LIST OF 50 CAUSES WITH CERTAIN SUB-DIVISIONS

Cause of death	Males			Females			
	ICD numbers	Number of deaths	Percentage of total	Crude rates(a)	Number of deaths	Percentage of total	Crude rates(a)
B 1 Cholera	000	..	..	..	..	..	..
B 2 Typhoid fever	001	..	..	..	..	..	..
B 3 Bacillary dysentery and amoebiasis	004, 006	6	(b)	1	4	(b)	1
B 4 Enteritis and other diarrhoeal diseases	008, 009	139	0.2	21	141	0.3	22
B 5 Tuberculosis of respiratory system	010-012	70	0.1	11	30	0.1	5
B 6 Other tuberculosis, including late effects	013-019	33	0.1	5	17	(b)	3
B 7 Plague	020	..	..	..	..	..	..
B 8 Diphtheria	032	1	(b)	(c)	..	..	..
B 9 Whooping cough	033	1	(b)	(c)	3	(b)	(c)
B10 Streptococcal sore throat and scarlet fever	034	..	..	..	1	(b)	(c)
B11 Meningococcal infection	036	15	(b)	2	8	(b)	1
B12 Acute poliomyelitis	040-043	..	..	..	..	..	..
B13 Smallpox	050	..	..	..	..	..	..
B14 Measles	055	4	(b)	1	2	(b)	(c)
B15 Typhus and other rickettsioses	080-083	..	..	..	..	..	..
B16 Malaria	084	..	..	..	..	..	..
B17 Syphilis and its sequelae	090-097	16	(b)	2	10	(b)	2
B18 All other infective and parasitic diseases	Remainder of 000-136	151	0.2	23	153	0.3	24
B19 Malignant neoplasms—							
(i) Digestive organs	150-159	3,276	5.4	502	2,891	5.9	447
(ii) Lung	162	2,970	4.9	455	504	1.0	78
(iii) Skin	172, 173	298	0.5	46	198	0.4	31
(iv) Breast	174	12	(b)	2	1,543	3.2	239
(v) Genital organs	180-187	1,043	1.7	160	1,175	2.4	182
(vi) Urinary organs	188, 189	562	0.9	86	266	0.5	41
(vii) Leukaemia and aleukaemia	204-207	432	0.7	66	342	0.7	53
(viii) Other malignant and lymphatic neoplasms	Remainder of 140-209	1,916	3.1	294	1,358	2.8	210
Total, B19		10,509	17.2	1,610	8,277	17.0	1,280
B20 Benign neoplasms and neoplasms of unspecified nature	210-239	83	0.1	13	107	0.2	17
B21 Diabetes mellitus	250	821	1.3	126	1,019	2.1	158
B22 Avitaminoses and other nutritional deficiency	260-269	51	0.1	8	42	0.1	6
B23 Anaemias	280-285	97	0.2	15	118	0.2	18
B24 Meningitis	320	43	0.1	7	30	0.1	5
B25 Active rheumatic fever	390-392	6	(b)	1	4	(b)	1
B26 Chronic rheumatic heart disease	393-398	378	0.6	58	492	1.0	76
B27 Hypertensive disease	400-404	672	1.1	103	825	1.7	128
B28 Ischaemic heart disease	410-414	19,963	32.7	3,059	13,193	27.1	2,041
B29 Other forms of heart disease	420-429	2,000	3.3	306	2,441	5.0	378
B30 Cerebrovascular disease	430-438	6,621	10.8	1,014	9,148	18.8	1,415
B31 Influenza	470-474	74	0.1	11	117	0.2	18
B32 Pneumonia	480-486	1,420	2.3	218	1,127	2.3	174
B33 Bronchitis, emphysema and asthma	490-493	3,278	5.4	502	800	1.6	124
B34 Peptic ulcer	531-533	365	0.6	56	208	0.4	32
B35 Appendicitis	540-543	32	0.1	5	19	(b)	3
B36 Intestinal obstruction and hernia	550-553, 560	172	0.3	26	196	0.4	30
B37 Cirrhosis of liver	571	573	0.9	88	232	0.5	36
B38 Nephritis and nephrosis	580-584	375	0.6	57	362	0.7	56
B39 Hyperplasia of prostate	600	177	0.3	27	..	..	..
B40 Abortion	640-645	..	..	..	6	(b)	1

For footnotes see end of table next page.

A. CAUSES OF DEATH: NUMBERS, PROPORTIONS AND CRUDE RATES(a), MALES AND FEMALES, AUSTRALIA, 1972—continued

ABBREVIATED LIST OF 50 CAUSES WITH CERTAIN SUB-DIVISIONS—continued

Cause of death	Males			Females			Crude rates(a)
	ICD numbers	Number of deaths	Percentage of total	Crude rates(a)	Number of deaths	Percentage of total	
B41 Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of complication	630-639, 650-678	..	..	..	27	0.1	4
B42 Congenital anomalies	740-759	692	1.1	106	630	1.3	97
B43 Birth injury, difficult labour and other anoxic and hypoxic conditions	764-768, 772, 776	442	0.7	68	260	0.5	40
B44 Other causes of perinatal mortality	Remainder of 760-779	977	1.6	150	702	1.4	109
B45 Symptoms and ill-defined conditions	780-796	356	0.6	55	321	0.7	50
B46 (i) Arteriosclerosis	440	898	1.5	138	1,311	2.7	203
(ii) Other diseases of circulatory system	441-448, 450-458	1,039	1.7	159	743	1.5	115
(iii) Other diseases of respiratory system	460-466, 500-508, 510-519	534	0.9	82	351	0.7	54
(iv) All other diseases	Remainder of 240-738	2,096	3.4	321	2,434	5.0	376
<i>Total, B46</i>		<i>4,567</i>	<i>7.5</i>	<i>700</i>	<i>4,839</i>	<i>9.9</i>	<i>748</i>
BE47 Motor vehicle accidents	E810-E823	2,617	4.3	401	954	2.0	148
BE48 All other accidents	E800-E807, E825-E949	1,951	3.2	299	1,117	2.3	173
BE49 Suicide and self-inflicted injuries	E950-E959	1,085	1.8	166	540	1.1	84
BE50 All other external causes	E960-E999	283	0.5	43	122	0.3	19
<i>All causes</i>		<i>61,116</i>	<i>100.0</i>	<i>9,364</i>	<i>48,644</i>	<i>100.0</i>	<i>7,524</i>

(a) Number of deaths per million of estimated mean population. (b) Less than 0.05. (c) Less than 0.5.

B CAUSES OF DEATH: MALES AND FEMALES IN AGE GROUPS, AUSTRALIA, 1972

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE EIGHTH REVISION OF THE INTERNATIONAL LIST)

Cause of death(a)	Sex	Number of deaths in age groups (years)										Not stated	Total	
		Under 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 and over			
B 3 Bacillary dysentery and amoebiasis	M	3	..	2	..	..	..	..	..	..	..	1	..	6
	F	..	1	2	..	..	..	..	..	..	..	..	..	4
B 4 Enteritis and other diarrhoeal diseases	M	46	19	9	2	4	3	5	12	14	25	..	..	139
	F	45	21	2	2	..	2	8	8	14	39	..	..	141
B 5 Tuberculosis of respiratory system	M	1	..	..	..	3	2	11	13	23	17	..	..	70
	F	..	..	..	..	1	2	5	7	6	9	..	..	30
B 6 Other tuberculosis, including late effects	M	..	..	1	1	1	1	8	5	11	5	..	..	33
	F	..	..	1	1	..	..	4	3	4	4	..	..	17
B 8 Diphtheria	M	..	..	1	..	..	..	..	..	..	..	..	..	1
B 9 Whooping cough	M	1	..	..	..	..	..	..	..	..	..	..	..	1
	F	2	1	..	..	..	..	..	..	..	..	..	..	3
B10 Streptococcal sore throat and scarlet fever	F	..	..	..	..	..	..	..	..	..	1	..	..	1
B11 Meningococcal infection	M	7	4	2	..	..	..	..	1	1	..	..	..	15
	F	3	3	..	..	..	..	..	..	..	2	..	..	8
B14 Measles	M	..	..	4	..	..	..	..	..	..	..	..	..	4
	F	2	..	..	..	..	..	..	..	..	..	..	..	2
B17 Syphilis and its sequelae	M	1	..	..	..	..	..	2	4	6	3	..	..	16
	F	1	..	..	..	..	..	1	2	3	2	..	..	10
B18 All other infective and parasitic diseases	M	38	14	3	5	10	6	14	18	18	25	..	..	151
	F	27	13	7	4	9	12	19	18	14	30	..	..	153
B19 Malignant neoplasms—														
(i) Digestive organs	M	..	3	3	6	22	116	350	844	1,043	888	1	3,276	
	F	..	1	1	5	24	74	273	536	756	1,221	..	2,891	
(ii) Lung	M	..	..	1	..	10	54	364	884	1,113	544	..	2,970	
	F	..	1	..	..	3	14	92	139	153	102	..	504	
(iii) Skin	M	..	..	..	7	19	33	60	75	53	51	..	298	
	F	..	..	..	6	19	21	38	32	37	45	..	198	
(iv) Breast	M	..	..	..	..	..	..	3	2	4	3	..	12	
	F	..	..	..	2	25	114	318	396	323	365	..	1,543	
(v) Genital organs	M	..	1	..	13	17	11	20	95	332	554	..	1,043	
	F	..	..	3	11	31	63	213	293	302	259	..	1,175	
(vi) Urinary organs	M	..	1	4	..	1	12	42	132	190	180	..	562	
	F	..	1	1	1	3	3	22	48	87	100	..	266	
(vii) Leukaemia and aleukemia	M	2	25	50	19	18	24	42	66	100	86	..	432	
	F	3	20	37	20	21	20	27	52	60	82	..	342	
(viii) Other malignant and lymphatic neoplasms	M	6	22	43	60	60	106	292	463	528	335	1	1,916	
	F	2	14	26	22	28	74	168	276	344	404	..	1,358	
<i>Total, B19</i>	<i>M</i>	<i>8</i>	<i>52</i>	<i>101</i>	<i>105</i>	<i>147</i>	<i>356</i>	<i>1,173</i>	<i>2,561</i>	<i>3,363</i>	<i>2,641</i>	<i>2</i>	<i>10,599</i>	
	<i>F</i>	<i>5</i>	<i>37</i>	<i>68</i>	<i>67</i>	<i>154</i>	<i>383</i>	<i>1,151</i>	<i>1,772</i>	<i>2,062</i>	<i>2,578</i>	<i>..</i>	<i>8,277</i>	

For footnote see end of table next page.

B. CAUSES OF DEATH: MALES AND FEMALES IN AGE GROUPS, AUSTRALIA, 1972—continued
 ABBREVIATED LIST OF 50 CAUSES (BASED ON THE EIGHTH REVISION OF THE INTERNATIONAL LIST)

Cause of death(a)	Sex	Number of deaths in age groups (years)										75 and over	Not stated	Total
		Under 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74				
B20 Benign neoplasms and neoplasms of unspecified nature	M	2	1	4	5	3	4	10	18	19	17	..	83	
	F	3	2	2	4	4	16	19	20	18	..	107		
B21 Diabetes mellitus	M	2	2	2	4	8	22	83	177	249	272	..	821	
	F	2	1	4	12	14	40	143	314	491	..	1,019		
B22 Avitaminoses and other nutritional deficiency	M	2	1	..	..	..	1	5	3	9	27	1	51
	F	2	3	..	1	2	6	4	4	4	20	..	42	
B23 Anaemias	M	1	1	3	2	1	3	1	12	24	49	..	97	
	F	1	1	3	1	1	3	4	13	22	69	..	118	
B24 Meningitis	M	15	10	5	..	1	..	..	8	3	1	..	43
	F	11	5	5	..	..	1	..	1	4	2	..	30
B25 Active rheumatic fever	M	..	1	1	..	..	..	1	2	1	..	..	6
	F	..	2	1	1	4	..	..	..	..	..	..	4
B26 Chronic rheumatic heart disease	M	..	..	2	5	10	20	65	104	103	69	..	378
	F	..	..	2	5	10	20	48	106	145	156	..	492
B27 Hypertensive disease	M	..	1	..	1	5	14	64	122	199	266	..	672	
	F	..	..	..	..	29	39	60	186	308	508	..	825
B28 Ischaemic heart disease	M	..	..	1	5	73	551	2,164	4,951	6,137	6,082	..	19,963
	F	..	..	..	2	16	121	523	1,618	3,485	7,427	..	13,193
B29 Other forms of heart disease	M	6	4	8	17	15	45	92	219	402	1,192	..	2,000	
	F	11	4	4	11	22	28	54	111	337	1,859	..	2,441	
B30 Cerebrovascular disease	M	6	3	4	22	22	124	372	959	1,872	2,237	..	6,621	
	F	1	..	3	12	37	142	368	748	1,877	5,960	..	9,148	
B31 Influenza	M	1	..	1	2	2	2	2	12	14	36	..	74	
	F	5	1	2	2	3	6	6	16	16	59	..	117	
B32 Pneumonia	M	187	26	12	13	20	39	81	151	244	647	..	1,420	
	F	112	27	9	9	15	22	36	77	114	706	..	1,127	
B33 Bronchitis, emphysema and asthma	M	6	5	12	15	19	35	146	556	1,228	1,256	..	3,278	
	F	5	7	10	17	11	14	90	149	196	301	..	800	
B34 Peptic ulcer	M	..	..	2	..	3	13	51	64	110	122	..	365
	F	1	..	..	..	1	8	13	38	40	107	..	208
B35 Appendicitis	M	..	1	1	2	2	3	4	7	5	6	..	32	
	F	..	..	2	3	2	3	4	7	3	7	..	19
B36 Intestinal obstruction and hernia	M	19	1	1	1	..	1	9	18	40	82	..	172	
	F	21	..	2	4	..	5	7	27	32	98	..	196	
B37 Cirrhosis of liver	M	2	1	1	6	8	67	169	179	107	33	..	573	
	F	2	..	..	1	3	22	65	75	46	18	..	232
B38 Nephritis and nephrosis	M	1	1	3	9	6	17	49	83	91	115	..	375	
	F	1	3	2	4	5	16	57	82	70	122	..	362	
B39 Hyperplasia of prostate	M	..	..	..	..	..	2	7	31	137	..	..	177
B40 Abortion	F	..	..	..	1	3	2	..	..	..	..	..	6
B41 Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of complication	F	..	..	..	5	11	11	..	..	..	..	..	27
B42 Congenital anomalies	M	472	66	37	25	21	18	12	28	9	4	..	692	
	F	434	58	34	23	16	13	16	20	9	7	..	630	
B43 Birth injury, difficult labour and other anoxic and hypoxic conditions	M	439	..	1	2	..	..	..	..	..	..	..	442
	F	258	..	..	..	..	..	..	..	..	..	..	260
B44 Other causes of perinatal mortality	M	976	1	..	..	..	..	..	..	..	..	..	977
	F	699	2	1	..	..	..	..	..	..	..	..	702
B45 Symptoms and ill-defined conditions	M	84	9	5	22	8	20	30	23	45	109	1	356	
	F	35	7	2	8	9	11	16	12	30	191	..	321	
B46 (i) Arteriosclerosis	M	..	..	..	..	..	1	8	44	167	678	..	898
	F	..	..	..	..	..	5	21	121	1,163	..	1,311	
(ii) Other diseases of circulatory system	M	2	3	3	6	4	16	59	201	381	364	..	1,039	
	F	4	1	7	7	7	20	44	75	153	432	..	743	
(iii) Other diseases of respiratory system	M	106	18	10	4	5	11	27	62	113	178	..	534	
	F	58	14	4	4	11	13	20	32	43	152	..	351	
(iv) All other diseases	M	46	36	32	64	49	126	257	403	440	643	..	2,096	
	F	38	25	33	53	60	103	240	398	485	998	1	2,434	
Total, B46	M	154	57	45	74	58	154	351	710	1,101	1,863	..	4,567	
	F	100	39	38	64	78	137	309	526	802	2,745	1	4,839	
BE47 Motor vehicle accidents	M	16	86	136	1,011	378	218	278	221	168	105	..	2,617	
	F	12	56	94	249	89	71	105	89	92	97	..	954	
BE48 All other accidents	M	76	126	117	266	214	219	225	227	169	309	3	1,951	
	F	50	74	47	33	36	24	49	67	116	621	..	1,117	
BE49 Suicide and self-inflicted injuries	M	..	..	4	164	179	209	228	150	96	54	1	1,085
	F	5	11	1	64	77	115	134	85	41	22	1	540	
BE50 All other external causes	M	5	11	3	42	36	63	59	36	16	11	1	283	
	F	4	9	7	18	20	20	17	10	12	5	..	122	
All causes	M	2,577	505	533	1,828	1,259	2,230	5,769	11,661	15,927	18,818	9	61,116	
	F	1,853	378	350	620	647	1,275	3,213	5,911	10,115	24,280	2	48,644	

(a) Categories of the Abbreviated List for which no deaths were recorded in 1972 have been omitted from this table. For details of such categories see Table A, pages 197-8.

Causes of death—children under one year

Causes of death of children under one year of age should be considered in relation to age at death because the emphasis on various causes changes rapidly as age at death varies, the majority of deaths in the first week of life being due to conditions arising during pregnancy and birth. A summary for 1972, of deaths of children under one year of age, classified according to principal causes of death and age at death, is given in the following table.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE, BY CAUSE OF DEATH
AUSTRALIA, 1972

Inter- national Classifi- cation of Diseases number	Cause of death	Age at death											
		Days		Total under one week	Weeks			Total under four weeks	Months			Total under one year	
		Under 1	1-6		1	2	3 weeks		1-2 (a)	3-5	6-11		
760	Chronic circulatory and genito- urinary diseases in mother . . .	12	12	24	..	..	..	24	1	..	..	..	25
761	Other maternal conditions un- related to pregnancy . . .	85	26	111	5	1	1	118	2	1	..	..	121
762	Toxaemias of pregnancy . . .	72	56	128	3	1	1	133	..	..	..	..	133
763	Maternal ante and intrapartum infection . . .	45	9	54	3	..	..	57	..	..	..	..	57
764-768	Difficult labour . . .	135	58	193	..	2	..	195	1	..	..	..	196
769	Other complications of pregnancy and childbirth . . .	480	149	629	9	5	2	645	2	..	..	..	647
770	Conditions of placenta . . .	217	88	305	1	2	1	309	2	..	..	..	311
771	Conditions of umbilical cord . . .	37	13	50	..	1	..	51	..	..	..	..	51
772, 773	Birth injury without mention of cause . . .	21	16	37	2	3	..	42	1	1	..	..	44
774, 775	Haemolytic disease of newborn . . .	40	20	60	1	1	..	62	..	..	..	..	62
776	Anoxic and hypoxic conditions not elsewhere classified . . .	259	183	442	8	..	4	454	2	1	..	..	457
777	Immaturity unqualified . . .	181	38	219	1	..	..	220	1	..	..	..	221
778, 779	Other conditions of newborn . . .	23	17	40	5	1	1	47	..	..	..	..	47
740-759	Congenital anomalies . . .	270	205	475	74	43	21	613	115	96	82	82	906
000-136	Infections . . .	3	11	14	5	8	9	36	39	41	61	61	177
480-486	Pneumonia . . .	7	17	24	8	8	6	46	109	89	55	55	299
(b)	Other diseases . . .	33	35	68	15	11	16	110	134	164	105	105	513
E911-E913	Inhalation or ingestion of food or other object causing obstruction or suffocation, and accidental mechanical suffocation . . .	..	..	..	1	1	2	4	32	40	19	19	95
(c)	Other external causes . . .	4	1	5	..	1	3	9	15	17	27	27	68
	All causes . . .	1,924	954	2,878	141	89	67	3,175	456	450	349	349	4,430

(a) Age four weeks and under 3 months.

(b) 140-474, 490-738, 780-796.

(c) E800-E910, E914-E999.

Deaths from certain important causes

As can be seen from the preceding tables, infective and parasitic diseases (Nos B1-B18) no longer cause many deaths in Australia, being responsible for only 0.7 per cent of total deaths. Of far greater importance are diseases of the circulatory system causing 54.0 per cent, malignant neoplasms causing 17.1 per cent and accidents, poisonings and violence causing 7.8 per cent of all deaths in 1972.

Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues (B19). Deaths classified under this heading according to the Sixth, Seventh and Eighth Revisions of the International List (used in Australia for deaths registered since 1950) are not directly comparable in total with those on the Fifth Revision basis (see Year Book No. 39, p. 628).

The most common sites of malignant neoplasms causing death in 1972 are identified in Table B (pages 198-9). Malignant neoplasms are predominantly diseases of advanced age, but leukaemia and aleukaemia frequently cause death at early ages.

Deaths in age groups and age-specific death rates for males and females who died from malignant neoplasms are given in the table on the following page.

DEATHS AND DEATH RATES FROM MALIGNANT NEOPLASMS(a), BY AGE GROUP AND SEX AUSTRALIA (b)

Age group (years)	1950				1960				1972			
	Number		Rate(c)		Number		Rate(c)		Number		Rate(c)	
	M	F	M	F	M	F	M	F	M	F	M	F
Under 15	92	53	8	5	141	110	9	7	161	110	8	6
15-29	95	75	10	8	112	75	10	7	175	135	11	9
30-44	249	413	27	47	361	517	32	49	433	469	36	41
45-54	552	669	118	148	852	831	138	143	1,173	1,151	158	160
55-64	1,294	1,171	347	299	1,671	1,186	401	276	2,561	1,772	466	311
65 and over	3,072	2,694	1,014	748	4,067	3,373	1,075	679	6,004	4,640	1,327	739
Total	5,355	5,075	130	125	7,207	6,092	139	120	10,509	8,277	161	128
	(d)				(e)				(f)			

(a) Includes neoplasms of lymphatic and haematopoietic tissues. (b) Excludes particulars of full-blood Aborigines prior to 1967. (c) Number of deaths per 100,000 of population at risk. For the individual age groups, the population at risk is that estimated at 30 June. For the total of all ages, the population at risk is the calendar year mean population. (d) Includes 1 male, age not stated. (e) Includes 3 males, age not stated. (f) Includes 2 males, age not stated.

Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries for the latest available year are as follows: Israel, 116; Japan, 116; South Africa (white population), 135; Poland, 138; Canada, 141; Australia, 145; United States of America, 162; Italy, 174; Uruguay, 190; Netherlands, 195; France, 206; England and Wales, 236; Scotland, 242.

Diseases of the circulatory system (B25-B30, part B46). This class is the largest among causes of death, representing 54 per cent of total deaths in 1972. The following table shows the number of deaths and death rates per 100,000 of mean population from diseases of the circulatory system for the years 1950-72. Comparability of the figures is not significantly affected by the various revisions of the International Classification of Diseases.

DEATHS AND DEATH RATES FROM DISEASES OF THE CIRCULATORY SYSTEM BY SEX: AUSTRALIA (a)

Year	Cerebrovascular disease				Heart disease				Other diseases of circulatory system				Total			
	Number		Rate(b)		Number		Rate(b)		Number		Rate(b)		Number		Rate(b)	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1950	4,035	5,351	98	132	14,687	10,256	356	253	1,736	1,802	42	44	20,458	17,409	496	429
1955	4,811	6,224	103	137	16,382	11,303	352	249	1,843	1,886	40	42	23,036	19,413	495	427
1960	5,183	6,659	100	131	18,654	13,173	359	259	2,068	1,970	40	39	25,905	21,802	499	429
1965	5,809	7,835	101	139	21,843	15,546	381	275	2,029	2,071	35	37	29,681	25,452	517	450
1970	6,508	9,178	103	148	23,639	17,269	376	278	2,266	2,516	36	40	32,413	28,963	515	466
1971	6,497	9,234	101	145	22,980	17,176	358	270	2,271	2,454	35	39	31,748	28,864	494	454
1972	6,621	9,148	101	142	22,769	16,673	349	258	2,187	2,336	34	36	31,577	28,157	484	436

(a) Excludes particulars of full-blood Aborigines prior to 1967. (b) Per 100,000 of mean population.

As can be seen from Table B (page 199), these conditions predominantly affect people of advanced age, only 9.1 per cent of deaths being at ages under 55 years in 1972.

Accidents, poisonings and violence (BE47 to BE50). Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; injuries undetermined whether accidentally or purposely inflicted; and injury resulting from operations of war, including delayed effects.

While not as numerically important as the above two groups in total this class of causes of death has a much greater influence at the younger ages, being responsible for 75 per cent of all deaths at ages 15-24 years in 1972.

The following table, showing the death rates in the main sub-groups per 100,000 of mean population, indicates that the death rate from violence is between two and three times as great for males as for females. The low level of the rates and proportions for the years 1941-45 is due largely to the exclusion of deaths of defence personnel from accidents, suicide and homicide, though the rates have been based on total mean population (including defence personnel). A further contributing factor is the decrease during this period in the number of automobile accidents. From July 1947 deaths of defence personnel from accidents, etc., have again been included.

**ACCIDENTS, POISONINGS, AND VIOLENCE: DEATH RATES(a), BY SEX
AUSTRALIA (b)**

Period	Death rate from—										All violence, percentage of total deaths	
	Motor vehicle accidents		Suicide		Homicide(c)		Other violence(d)		Total violence			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1941-45	19	5	11	5	1	1	48	21	79	31	7.30	3.48
1946-50	30	6	14	5	1	1	46	21	91	33	8.44	3.83
1951-55	38	9	15	5	2	1	44	22	99	37	9.64	4.53
1956-60	37	11	17	6	2	1	38	20	93	39	9.57	4.95
1961-65	38	13	19	9	2	1	34	19	93	42	9.54	5.50
1966-70	43	15	17	9	2	1	33	20	95	45	9.61	5.71
1967	42	14	19	11	2	1	35	20	98	47	10.08	6.11
1968	43	14	17	8	2	1	34	21	95	45	9.43	5.51
1969	44	16	17	8	2	1	30	18	92	43	9.54	5.65
1970	46	17	17	8	2	1	32	19	97	45	9.67	5.58
1971	45	15	18	9	2	1	31	18	96	44	10.09	5.61
1972	40	15	17	8	2	1	32	18	91	42	9.71	5.62

(a) Number of deaths per 100,000 of mean population. (b) Excludes particulars of full-blood Aborigines before 1967. (c) Includes deaths from injury purposely inflicted by other persons (not in war) and legal intervention. (d) Includes deaths from injury undetermined whether accidentally or purposely inflicted.

In 1972 the total number of deaths from *accidental causes* (BE47, BE48) was 6,639 (4,568 males and 2,071 females). Over half of the accidental deaths were the result of transport accidents. Of these, the numbers attributable to the major causes, and the percentages of the total accidental deaths in each case, were as follows: Motor vehicle traffic accidents, 3,450 (51.97 per cent); motor vehicle non-traffic accidents, 121 (1.82 per cent); other road vehicle accidents, 33 (0.50 per cent); railway accidents, 81 (1.22 per cent); water transport accidents, 111 (1.67 per cent); aircraft accidents, 54 (0.81 per cent); a total of 3,850 (57.99 per cent). Other important causes were accidental falls, 1,264 (19.04 per cent); accidental drowning (not in transport), 409 (6.16 per cent); accidents caused by fires and flames, 208 (3.13 per cent); and accidental poisonings, 128 (1.93 per cent).

Deaths from *suicide* (BE49) in 1972 numbered 1,625 (males, 1,085; females, 540). Poisoning, other than by gases, occurred in 653 cases (40.18 per cent of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows; firearms and explosives, 381 (23.45 per cent); poisoning by gases, 241 (14.83 per cent); hanging or strangulation 185 (11.38 per cent); submersion (drowning), 62 (3.82 per cent); other and unspecified modes, 103 (6.34 per cent). Of the 1,085 males who committed suicide, 354 (32.63 per cent) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 374 cases (69.26 per cent).

Of the 405 deaths assigned in 1972 to all other external causes (BE50), there were 219 deaths from homicide and injury purposely inflicted by other persons, 2 deaths from legal intervention by firearms, 178 deaths from injury undetermined whether accidentally or purposely inflicted (of which 75 were due to poisoning other than by gases) and 6 deaths from late effects of injury due to operations of war.

Vital statistics of External Territories

The following table shows, for the year 1972, the number of marriages, births and deaths registered in the External Territories under the control of Australia. More detailed information will be found in *Demography*, Bulletin No. 86.

EXTERNAL TERRITORIES: VITAL STATISTICS, 1972

Territory	Marriages	Births	Deaths
Christmas Island(a)	11	34	8
Cocos (Keeling) Islands(a)	8	18	4
Norfolk Island(a)	15	21	9
Papua New Guinea(b)	347	1,359	118

(a) Total population. (b) Non-indigenous population only.

International vital statistics

Vital statistics rates for selected countries with relatively complete civil registration data are shown in the following table. The source of this information is the United Nations *Demographic Yearbook*. The yearbook contains rates for most countries and identifies the qualifications of the data applicable to different countries. The crude marriage, birth and death rates shown represent the number of 'events' per 1,000 of the population. Infant mortality rates are the number of deaths which occurred under one year of age per 1,000 live births. An explanation of the meaning of 'expectation of life at birth' is shown on page 191.

VITAL STATISTICS RATES: CERTAIN COUNTRIES—LATEST AVAILABLE YEAR

(Source: United Nations *Demographic Yearbook* 1972)

Country	Rates(a)					Expectation of life at birth		
	Year	Marriage	Birth	Death	Infant mortality	Year	Male	Female
Australia	1972	8.8	20.4	8.5	16.7	1972	68.2	75.0
Canada	1971	8.9	16.8	7.3	17.6	1965-67	68.8	75.2
Czechoslovakia	1971	9.0	16.5	11.5	21.6	1969	66.2	73.2
France	1972	8.1	16.9	10.6	13.3	1970	68.6	76.1
Germany, Federal Republic of	1972	6.7	11.4	11.8	23.3	1966-68	67.6	73.6
Greece	1971	8.3	15.9	8.3	26.9	1960-62	67.5	70.7
Hungary	1972	9.4	14.7	11.4	32.7	1970	66.3	72.1
Italy	1972	7.7	16.3	9.6	28.3	1964-67	67.9	73.4
Japan	1971	10.5	19.2	6.6	12.4	1968	69.1	74.3
Netherlands	1972	8.8	16.1	8.5	11.4	1971	71.0	76.7
New Zealand	1971	9.5	22.6	8.5	16.5	1960-62	68.4	73.8
Poland	1972	9.3	17.4	8.0	28.5	1965-66	66.9	72.8
Romania	1971	7.3	19.6	9.5	42.4	1968	65.5	69.8
Spain	1972	7.6	19.4	8.2	18.5	1960	67.3	71.9
Sri Lanka (Ceylon)	1971	6.7	29.9	7.6	50.3	1962	61.9	61.4
Union of Soviet Socialist Republics	1972	9.4	18.0	8.5	24.3	1968-69	65.0	74.0
United Kingdom	1972	8.3	14.9	11.9	17.9	1969-71	68.8	75.1
United States of America	1972	10.9	15.6	9.4	18.5	1971	71.1	75.1
Yugoslavia	1972	9.0	18.2	9.1	43.2	1968-70	64.8	69.2

CHAPTER 9

HOUSING AND BUILDING

Pages 205–12 of this chapter give details of the *characteristics of dwellings obtained from censuses*, pages 212–25 contain a *summary of building activities*, pages 225–36 outline *government activities in the field of housing*, and pages 236–42 relate to *financial arrangements associated with the erection or purchase of homes*.

Further information on dwellings obtained from censuses is available in the detailed tables of the publications issued for each individual Census. A list of the 1971 Census publications is shown at the end of this volume.

More detailed information on building activity is contained in the annual bulletin *Building and Construction* (3.1) and the *Quarterly Bulletin of Building Statistics* (3.6), and current information is obtainable also in the *Quarterly Summary of Australian Statistics* (1.3), the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5), and the mimeographed statements *Building Statistics; Number of Dwellings* (quarterly) (3.5), and *Building Approvals* (monthly) (3.2). Details for particular States are available from publications issued regularly by the Deputy Commonwealth Statistician in each State. The *Housing Quarterly* published by the Department of Housing and Construction contains further information on current trends in housing activity.

The annual reports of the Department of Housing and Construction, the Defence Service Homes Division and of other Australian and State Government Housing Authorities show further details of government activities in the field of housing.

Census dwellings

At each census of the population, in addition to the questions relating to personal particulars, there have been a number of questions relating to dwellings. A 'dwelling' is defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building, and includes, *in addition to houses and self-contained flats*, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. This section contains particulars of such information on dwellings as is available from the 1971 Census, together with information from earlier censuses. In conformity with the 1967 repeal of section 127 of the Constitution, 1971 Census statistics include Aborigines. In order to provide comparability between the 1971 and 1966 censuses, tables showing 1966 data have been amended to include Aborigines or their dwellings (except where noted to the contrary) and therefore differ from the 1966 tables previously published.

Number of dwellings

The following table shows the number of occupied and unoccupied dwellings in Australia at each census from 1911 to 1971. Occupied dwellings are classified into 'private' and 'other than private' dwellings (*see* page 206 for definitions of 'private' and 'other than private' dwellings). Unoccupied dwellings include dwellings whose occupants are temporarily absent, holiday homes, and other temporarily vacant dwellings (*see* page 211 for full explanation of the term 'unoccupied').

DWELLINGS(a): AUSTRALIA, CENSUSES, 1911 TO 1971

Census	Occupied			Unoccupied
	Private	Other than private	Total	
1911 . . .	894,389	29,070	923,459	33,473
1921 . . .	1,107,010	46,275	1,153,285	51,163
1933 . . .	1,509,671	37,705	1,547,376	68,772
1947 . . .	1,873,623	34,272	1,907,895	47,041
1954 . . .	2,343,421	36,932	2,380,353	112,594
1961 . . .	2,781,945	35,325	2,817,270	194,114
1966 . . .	3,155,340	33,917	3,189,257	263,873
1971 . . .	3,670,553	24,006	3,694,559	339,057

(a) Excludes dwellings occupied solely by Aborigines before 1966.

The following table shows the number of occupied and unoccupied dwellings in the urban and rural areas of Australia at the Census of 30 June 1971. For delimitation of 'urban centres' see this Year Book, pages 140-1.

DWELLINGS: URBAN AND RURAL, AUSTRALIA, CENSUS 30 JUNE 1971

Division	Occupied				Unoccupied	
	Private	Other than private	Total Number	Percentage of total	Number	Percentage of total
Urban—						
Major	2,428,912	10,662	2,439,574	66.03	142,731	42.10
Other	755,196	7,734	762,930	20.65	94,183	27.78
Rural	486,445	5,610	492,055	13.32	102,143	30.12
Total	3,670,553	24,006	3,694,559	100.00	339,057	100.00

The total numbers of occupied and unoccupied dwellings in each State and Territory at the Censuses of 1966 and 1971 were as follows.

DWELLINGS: CENSUSES, 1961 AND 1971

State or Territory	Census 30 June 1966		Census 30 June 1971	
	Occupied	Unoccupied	Occupied	Unoccupied
New South Wales	1,190,010	101,546	1,364,542	124,522
Victoria	889,053	64,757	1,015,485	88,521
Queensland	450,309	41,818	517,245	51,077
South Australia	302,626	25,110	344,112	30,553
Western Australia	225,701	17,965	286,845	28,274
Tasmania	99,366	10,800	110,420	13,307
Northern Territory	8,637	380	17,792	929
Australian Capital Territory	23,555	1,497	38,118	1,874
Australia	3,189,257	263,873	3,694,559	339,057

Class of dwelling (1966 and 1971)

The first of the following tables shows the numbers of the various classes of occupied dwellings in the major urban, other urban, and rural areas of Australia at the Census of 30 June 1971 and totals for the Censuses of 1966 and 1971. The second table shows numbers of the various classes of dwelling for each State and Territory at the 1971 Census.

Private dwellings were classified into the following categories for the 1971 Census:

private house—includes separate, semi-detached, attached and terrace or row houses.

villa unit—also includes dwellings variously described as town house, cottage unit, villa development, cottage flats.

self-contained flat—part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities. Includes home units.

other private dwellings—comprise non-self contained parts or rooms of houses, flats or other premises. Also includes sheds, tents, garages, caravans and houseboats occupied on a permanent or semi-permanent basis.

Other than private dwellings includes hotels; motels; boarding houses and hostels; educational, religious and charitable institutions; hospitals; defence and penal establishments; caravan parks; staff barracks and quarters, etc.

Occupied dwellings, by class

NUMBERS AND PERCENTAGE DISTRIBUTION, URBAN AND RURAL(a), AUSTRALIA
CENSUSES, 1966 AND 1971

Class of dwelling	Census 30 June 1966		Census 30 June 1971			Total	Proportion of total occupied dwellings	Inter-censal increase or decrease
	Total	Proportion of total occupied dwellings	Major urban	Other urban	Rural			
Occupied dwellings—								
Private dwellings—								
Private house	2,683,310	84.1	1,949,209	674,203	456,829	3,080,241	83.3	396,931
Villa unit	(b)	(b)	34,131	3,685	1,532	39,348	1.1	n.a.
Self-contained flat	345,645	10.8	389,203	58,759	5,121	453,083	12.3	107,438
Other private dwellings	126,385	4.0	56,369	18,549	22,963	97,881	2.6	-28,504
Total private dwellings	3,155,340	98.9	2,428,912	755,196	486,445	3,670,553	99.3	515,213
Non-private dwellings(c)	33,917	1.1	10,662	7,734	5,610	24,006	0.7	-9,911
Total occupied dwellings	3,189,257	100.0	2,439,574	762,930	492,055	3,694,559	100.0	505,302

(a) Census, 30 June 1971 only. (b) Villa units were not separately identified at the 1966 Census. (c) Details of the number of each of the types of non-private dwellings are available on request.
Minus sign (-) denotes decrease.

OCCUPIED DWELLINGS, BY CLASS, CENSUS 30 JUNE 1971

Class of dwelling	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Occupied dwellings—									
Private dwellings—									
Private house	1,086,360	854,636	442,985	306,628	247,769	98,749	10,668	32,446	3,080,241
Villa unit	5,995	15,300	1,676	13,430	1,925	647	125	250	39,348
Self-contained flat	225,549	120,857	49,313	16,569	25,473	8,417	2,202	4,703	453,083
Other private dwellings	38,629	19,393	18,626	5,437	9,192	1,784	4,287	533	97,881
Total private dwellings	1,356,533	1,010,186	512,600	342,064	284,359	109,597	17,282	37,932	3,670,553
Non-private dwellings(a)	8,009	5,299	4,645	2,048	2,486	823	510	186	24,006
Total occupied dwellings	1,364,542	1,015,485	517,245	344,112	286,845	110,420	17,792	38,118	3,694,559

(a) Details of the number of each of the types of non-private dwellings are available on request.

Population according to class of dwelling, etc. (1966 and 1971)

INMATES BY CLASS OF DWELLING: NUMBERS AND PERCENTAGE DISTRIBUTION
URBAN AND RURAL(a), AUSTRALIA, CENSUSES, 1966 AND 1971

Class of dwelling	Census 30 June 1966		Census 30 June 1971			Total population	Proportion of total population	Inter-censal increase or decrease
	Total population	Proportion of total population	Major urban	Other urban	Rural			
Persons enumerated in—								
Private dwellings—								
Private house	9,836,988	84.8	6,877,496	2,312,620	1,651,101	10,841,217	85.0	1,004,229
Villa unit	(b)	(b)	68,118	8,431	5,690	82,239	0.6	n.a.
Self-contained flat	834,179	7.2	874,268	137,780	13,173	1,025,221	8.0	191,042
Other private dwellings	284,084	2.4	97,339	44,655	64,715	206,709	1.6	-77,375
Total private dwellings	10,955,251	94.4	7,917,221	2,503,486	1,734,679	12,155,386	95.3	1,200,135
Non-private dwellings	594,081	5.1	308,759	181,140	86,130	576,029	4.5	-18,052
Total	11,549,332	99.5	8,225,980	2,684,626	1,820,809	12,731,415	99.8	1,182,083
Persons not enumerated in dwellings—								
Campers out(c)	30,478	0.3	795	2,050	4,155	7,000	0.1	-23,478
Migratory(d)	19,688	0.2				17,223	0.1	-2,465
Total population	11,599,498	100.0	8,226,775	2,686,676	1,824,964	12,755,638	100.0	1,156,140

(a) Census, 30 June 1971 only. (b) Villa units were not separately identified at the 1966 Census. (c) Comprises persons living temporarily (e.g. on holidays) in tents, caravans or house-boats, or who were 'camped out' on Census night. (d) Comprises persons who on Census night were travelling on board ships in Australian waters, or ships which had left an Australian port prior to Census night with a next port of call in Australia. Also includes persons enumerated on long-distance trains, motor coaches or aircraft.

Minus sign (-) denotes decrease.

Occupied private dwellings

The tables on pages 208-11 show occupied private houses and self-contained flats classified according to various characteristics and facilities.

Nature of occupancy (1966 and 1971)

OCCUPIED PRIVATE HOUSES AND SELF-CONTAINED FLATS BY NATURE OF OCCUPANCY: AUSTRALIA, CENSUSES, 1966 AND 1971

Nature of occupancy	Private houses				Self-contained flats			
	Census 30 June 1966		Census 30 June 1971		Census 30 June 1966		Census 30 June 1971	
	Total	Percentage of private houses	Total	Percentage of private houses	Total	Percentage of flats	Total	Percentage of flats
Owner or purchaser by instalments	2,124,004	79.2	2,334,391	75.8	72,713	21.0	91,454	20.2
Tenant of government	133,104	5.0	164,284	5.3	27,348	7.9	34,111	7.5
Tenant of employer	} a 361,671	(a) 13.5	{ 85,202	2.8	} a 237,488	(a) 68.7	{ 7,538	1.7
Other tenant									343,303	11.1	296,607	65.5
Other methods of occupancy	48,446	1.8	99,027	3.2	5,645	1.6	9,651	2.1
Not stated	16,085	0.6	54,034	1.8	2,451	0.7	13,722	3.0
Total	2,683,310	100.0	3,080,241	100.0	345,645	100.0	453,083	100.0

(a) 'Tenant of employer' and 'other Tenant' were not separately identified at the 1966 Census.

Material of outer walls (1966 and 1971)

OCCUPIED PRIVATE HOUSES AND SELF-CONTAINED FLATS, BY MATERIAL OF OUTER WALLS: AUSTRALIA, CENSUSES, 1966 AND 1971

Material of outer walls	Census 30 June 1966				Census 30 June 1971			
	Private house	Percentage of total	Self-contained flat	Percentage of total	Private house	Percentage of total	Self-contained flat	Percentage of total
Brick	674,335	25.1	224,962	65.1	882,847	28.7	325,952	71.9
Brick veneer	262,160	9.8	16,250	4.7	391,545	12.7	24,212	5.3
Stone	68,919	2.6	6,515	1.9	69,726	2.3	6,362	1.4
Concrete	68,187	2.5	17,678	5.1	68,922	2.2	25,405	5.6
Timber	1,076,967	40.1	50,276	14.5	1,121,288	36.4	45,106	10.0
Metal	28,770	1.1	1,171	0.3	39,042	1.3	1,206	0.3
Fibro-cement	495,718	18.5	28,577	8.3	499,019	16.2	24,410	5.4
Other	8,254	0.3	216	0.1	7,852	0.3	430	0.1
Total	2,683,310	100.0	345,645	100.0	3,080,241	100.0	453,083	100.0

Number of rooms (1966 and 1971)

OCCUPIED PRIVATE DWELLINGS BY NUMBER OF ROOMS AND CLASS OF DWELLING
AUSTRALIA, CENSUSES, 1966 AND 1971

Number of rooms per dwelling(a)	Class of dwelling				Total private dwellings
	Private house	Villa unit	Self-contained flat	Other	
CENSUS 30 JUNE 1966					
1	2,235	(b)	7,804	41,954	51,993
2	15,107	(b)	50,859	37,424	103,390
3	63,041	(b)	93,593	23,189	179,823
4	369,582	(b)	113,632	11,081	494,295
5	1,055,840	(b)	50,906	6,090	1,112,836
6	697,273	(b)	18,746	3,420	719,439
7	305,797	(b)	6,104	1,706	313,607
8 and over	174,435	(b)	4,001	1,521	179,957
Total private dwellings	2,683,310	(b)	345,645	126,385	3,155,340
Average number of rooms per dwelling	5.5	n.a.	3.7	2.4	5.2
CENSUS 30 JUNE 1971					
1	6,087	1,269	19,100	43,771	70,227
2	23,957	4,791	79,502	27,173	135,423
3	95,603	10,437	134,006	13,586	253,632
4	460,652	16,665	152,403	5,189	634,909
5	1,333,989	4,248	46,715	2,735	1,387,687
6	726,508	1,214	13,240	1,816	742,778
7	276,212	326	3,978	968	281,484
8 and over	157,233	398	4,139	2,643	164,413
Total private dwellings	3,080,241	39,348	453,083	97,881	3,670,553
Average number of rooms per dwelling	5.3	3.6	3.5	2.2	5.0

(a) Bathrooms, toilets, pantries, laundries, storerooms, halls and rooms used only for business purposes are excluded, but permanently enclosed sleep-outs are included. A combined purpose room such as a living-dining or kitchen-dining room is counted as only one room. (b) Villa units were not separately identified at the 1966 Census.

OCCUPIED PRIVATE DWELLINGS BY NUMBER OF BEDROOMS AND CLASS OF DWELLING
AUSTRALIA, CENSUS 30 JUNE 1971

Number of bedrooms per dwelling	Class of dwelling				Total private dwellings
	Private house	Villa unit	Self-contained flat	Other	
No bedroom	9,365	2,162	26,000	39,716	77,243
1	83,586	10,106	152,125	29,371	275,188
2	718,696	21,761	217,283	9,544	967,284
3	1,777,575	4,108	41,526	3,023	1,826,232
4	392,092	477	5,113	1,155	398,837
5 and over	77,400	302	2,507	2,304	82,513
Not stated	21,527	432	8,529	12,768	43,256
Total private dwellings	3,080,241	39,348	453,083	97,881	3,670,553
Average number of bedrooms per dwelling	2.9	1.8	1.6	0.8	2.6

Occupied self-contained flats

NUMBER OF OCCUPIED SELF-CONTAINED FLATS AND NUMBER OF INMATES BY NUMBER OF FLATS IN BLOCK: CENSUS 30 JUNE 1971

State or Territory	Number of flats in block						Total
	1(a)	2	3-8	9-16	17-32	33+	
New South Wales—							
Number of self-contained flats	19,919	26,794	80,749	55,755	26,399	15,933	225,549
Number of inmates	51,781	69,374	191,739	123,699	53,615	30,140	520,348
Victoria—							
Number of self-contained flats	13,524	12,028	42,117	32,671	12,159	8,358	120,857
Number of inmates	34,243	28,837	97,435	66,780	22,787	20,979	271,061
Queensland—							
Number of self-contained flats	3,775	10,546	29,494	3,402	1,112	984	49,313
Number of inmates	9,388	27,477	65,355	6,576	2,142	1,819	112,757
South Australia—							
Number of self-contained flats	3,234	2,703	6,939	2,035	869	789	16,569
Number of inmates	6,866	6,109	14,385	3,944	1,592	1,366	34,262
Western Australia—							
Number of self-contained flats	1,541	1,208	5,780	5,390	4,956	6,598	25,473
Number of inmates	3,423	2,676	11,952	11,940	10,961	13,257	54,209
Tasmania—							
Number of self-contained flats	1,609	2,431	3,207	714	223	233	8,417
Number of inmates	3,692	5,872	6,523	1,171	464	439	18,161
Northern Territory—							
Number of self-contained flats	244	222	985	241	379	131	2,202
Number of inmates	592	592	2,379	549	893	305	5,310
Australian Capital Territory—							
Number of self-contained flats	589	534	1,067	1,008	670	835	4,703
Number of inmates	1,196	1,267	2,222	2,035	1,294	1,099	9,113
Australia—							
Number of self-contained flats	44,435	56,466	170,338	101,216	46,767	33,861	453,083
Number of inmates	111,181	142,204	391,990	216,694	93,748	69,404	1,025,221

(a) Represents flats that are not part of a multi-flat unit.

Facilities (1966 and 1971)

OCCUPIED PRIVATE HOUSES AND SELF-CONTAINED FLATS BY GAS ELECTRICITY AND TELEVISION FACILITIES: AUSTRALIA CENSUSES, 1966 AND 1971

Facilities	Census 30 June 1966		Census 30 June 1971	
	Private house	Self-contained flat	Private house	Self-contained flat
With gas only	5,193	486	3,078	196
With electricity only	1,506,229	128,094	1,833,684	226,114
With gas and electricity	1,139,949	214,897	1,215,709	219,164
Neither gas nor electricity	24,109	272	9,440	207
Not stated	7,830	1,896	18,330	7,402
Total	2,683,310	345,645	3,080,241	453,083
With television	2,154,520	235,106	2,488,764	305,046
Without television	528,790	110,539	236,386	70,071
Not stated			355,091	77,966
Total	2,683,310	345,645	3,080,241	453,083

NOTE. Dwellings for which electricity was not stated but which had television have been classified as having electricity and therefore included as such in this table.

OCCUPIED PRIVATE DWELLINGS BY BATHROOM AND KITCHEN FACILITIES AND CLASS OF DWELLING: AUSTRALIA, CENSUS 30 JUNE 1971

Facilities	Class of dwelling				Total	Proportion total
	Private house	Villa unit	Self-contained flat	Other		
Bathroom only	7,847	325	1,235	7,960	17,367	0.5
Kitchen only	14,327	344	1,326	10,447	26,444	0.7
Bathroom and kitchen	3,036,856	38,200	443,530	61,543	3,580,129	97.5
Neither bathroom nor kitchen	3,930	130	..	8,925	12,985	0.4
Not stated	17,281	349	6,992	9,006	33,628	0.9
Total	3,080,241	39,348	453,083	97,881	3,670,553	100.0

OCCUPIED PRIVATE HOUSES AND SELF-CONTAINED FLATS BY NUMBER OF MOTOR VEHICLES: URBAN AND RURAL(a), AUSTRALIA, CENSUSES, 1966 AND 1971

Number of motor vehicles	Census 30 June 1966		Census 30 June 1971							
	Houses	Flats	Major urban		Other urban		Rural		Total	
			Houses	Flats	Houses	Flats	Houses	Flats	Houses	Flats
No vehicles	557,392	131,051	367,305	139,441	110,934	15,386	41,940	976	520,179	155,803
1	1,400,206	164,948	980,979	194,127	365,315	32,923	198,269	2,815	1,544,563	229,865
2	517,566	27,466	461,605	35,472	151,463	6,832	131,455	845	744,523	43,149
3	114,800	4,083	86,338	4,338	27,766	1,033	50,652	197	164,756	5,568
4 or more	38,838	1,251	20,949	2,071	8,430	541	28,100	103	57,479	2,715
Not stated	54,508	16,826	32,033	13,754	10,295	2,044	6,413	185	48,741	15,983
Total	2,683,310	345,645	1,949,209	389,203	674,203	58,759	456,829	5,121	3,080,241	453,083

(a) Census, 30 June 1971 only.

OCCUPIED PRIVATE DWELLINGS BY METHOD OF SEWAGE DISPOSAL AND CLASS OF DWELLING: AUSTRALIA, CENSUS 30 JUNE 1971

Method of sewage disposal	Class of dwelling				Total	Proportion of total
	Private house	Villa unit	Self-contained flat	Other		
Mains sewer	1,955,150	34,196	402,237	53,250	2,444,833	66.5
Separate	786,471	3,947	35,922	12,340	838,680	22.8
Sanitary pan	227,984	582	5,342	7,370	241,278	6.6
Other	90,300	238	827	14,272	105,637	2.9
Not stated	20,336	385	8,755	10,649	40,125	1.1
Total	3,080,241	39,348	453,083	97,881	3,670,553	100.0

Unoccupied dwellings (1971)

An unoccupied dwelling is defined as a structure built specifically for private living purposes and which is habitable, though unoccupied at the time of the Census. The total number of unoccupied dwellings shown for any area does not represent the number of vacant dwellings available for sale or renting.

**UNOCCUPIED PRIVATE DWELLINGS BY REASON UNOCCUPIED: NUMBERS
AND PERCENTAGE DISTRIBUTION URBAN AND RURAL, AUSTRALIA
CENSUS 30 JUNE 1971**

<i>Reason unoccupied</i>	<i>Major urban</i>		<i>Other urban</i>		<i>Rural</i>		<i>Total</i>	
	<i>Number</i>	<i>Per-centage of total</i>	<i>Number</i>	<i>Per-centage of total</i>	<i>Number</i>	<i>Per-centage of total</i>	<i>Number</i>	<i>Per-centage of total</i>
For sale	16,480	4.9	6,088	1.8	3,416	1.0	25,984	7.7
To let	23,027	6.8	12,154	3.6	6,260	1.8	41,441	12.2
Newly built	14,417	4.3	3,820	1.1	1,988	0.6	20,225	6.0
Vacant for repair	7,049	2.1	2,925	0.9	3,141	0.9	13,115	3.9
Holiday home	13,822	4.1	37,403	11.0	41,257	12.2	92,482	27.3
Condemmed	4,555	1.3	2,268	0.7	5,292	1.6	12,115	3.6
Temporarily vacant	50,370	14.9	24,084	7.1	18,389	5.4	92,843	27.4
Other reasons	8,427	2.5	3,675	1.1	19,474	5.7	31,576	9.3
Not stated	4,584	1.4	1,766	0.5	2,926	0.9	9,276	2.7
Total	142,731	42.1	94,183	27.8	102,143	30.1	339,057	100.0

**UNOCCUPIED PRIVATE DWELLINGS BY REASON UNOCCUPIED AND CLASS OF
DWELLING: AUSTRALIA, CENSUS 30 JUNE 1971**

<i>Reason unoccupied</i>	<i>Class of dwelling</i>				<i>Total</i>	<i>Percentage of total</i>
	<i>Private house</i>	<i>Villa unit</i>	<i>Self-contained flat</i>	<i>other</i>		
For sale	20,609	1,302	3,952	121	25,984	7.7
To let	18,078	552	19,855	2,956	41,441	12.2
Newly built	13,354	1,129	5,570	172	20,225	6.0
Vacant for repair	11,419	48	1,453	195	13,115	3.9
Holiday home	83,654	703	6,537	1,588	92,482	27.3
Condemmed	11,485	12	508	110	12,115	3.6
Temporarily vacant	71,909	1,963	16,176	2,795	92,843	27.4
Other reasons	28,956	203	1,839	578	31,576	9.3
Not stated	7,039	86	1,737	414	9,276	2.7
Total	266,503	5,998	57,627	8,929	339,057	100.0

Building

Building activity is a significant indicator of the level of economic activity. In addition, the level of building activity and the types of buildings being constructed affect the Australian physical and social environment. Building approvals statistics give an indication of the potential future level of investment of private individuals, companies and government agencies in approved building construction. As such they provide advance information about potential future building activity. Building operations statistics show the level of actual building construction activity in terms of the level of commencements and completions, building jobs under construction and the value of work done and yet to be done on building jobs.

Statistics of building approved

Statistics of building approvals have been compiled since the year 1953-54 from (a) permits issued by local government authorities in the areas subject to building control by these authorities, and (b) contracts let or work commenced and day labour projects authorised by government authorities. They relate only to approvals for buildings as distinct from the construction of roads, railways, bridges, earthworks, water storages, etc. Values shown represent the estimated cost when completed (excluding cost of land) of new buildings and alterations and additions to existing buildings. Before 1 July 1966 additions of \$10,000 and over were included with new buildings in all States except New South Wales, where they were included in 'alterations and additions'. From 1 July 1966 alterations and/or additions of \$10,000 and over are included with new buildings in all States.

Statistics of building commenced, completed and under construction

These relate to building by private contractors, government authorities and owner-builders. The following outlines the scope of the statistics: (a) *only the erection of new buildings as distinct from the construction of roads, railways, bridges, earthworks, water storages, etc., is covered*; (b) before 1 July 1966 major new additions to existing buildings in all States and major alterations in New South Wales were included with new buildings, while from 1 July 1966 alterations and/or additions of \$10,000 and over are included with new buildings in all States; (c) minor additions, alterations, renovations and repairs are excluded because of the difficulty of obtaining details of this work; (d) temporary dwellings, sheds, huts, etc., are excluded; (e) figures for houses exclude flats and dwellings attached to other new buildings (the value of dwellings attached to other new buildings is included with the value of buildings to which they are attached); figures for flats include 'home units'; (f) details obtained from government authorities and buildings contractors refer to all areas, whereas details for owner-builders cover only areas subject to building control by local government authorities.

The following definitions of terms used in this section are necessary for interpretation of the data presented.

Private or government ownership. A building is classified as 'private' or 'government' according to ownership at date of commencement. Thus 'government' includes buildings erected for the Australian and State Governments, semi-government and local government authorities, either by contractor or by day-labour, whether these buildings are for their own use or for rental or sale after completion. Houses erected for *particular persons* under government-sponsored home building schemes or with government financial assistance are classified as 'private'.

Owner-built. An 'owner-built' house is one actually erected or being erected by the owner or under the owner's direction without the services of a contractor who is responsible for the whole job.

Contract-built. Includes the operations of all building contractors, and government authorities who undertake the erection of new buildings with day labour.

Commenced. A building is regarded as having been commenced when work on foundations has begun. Owing to the difficulty of defining the exact point that this represents in building operations, classifications made by informants may not be entirely uniform.

Completed. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract. As with commencements, the classifications made may not be entirely uniform.

Under construction. A building is regarded as being under construction if it has been commenced but not completed, whether or not work on the building is actively proceeding.

Values. All values shown exclude the value of land and represent the estimated value of buildings on completion.

Values of work done. The values of work done during the period represent the estimated value of work actually carried out on buildings during the period. For any building the sum of these values obtained during its construction equals the value of the building on completion. Data relating to the value of work done on owner-built houses are not collected. However, the figures shown for the value of work done include a component relating to owner-built houses calculated on the basis of the figures collected for the value of owner-built houses commenced, completed and under construction.

The values of work yet to be done on buildings under construction at the end of period are the differences between the estimated total value of work done at the end of period and the estimated final value of the building on completion. They therefore represent the values of work which will be carried out in subsequent quarters on buildings already under construction.

Type of building. Classification is according to the function a building is intended to serve. A building which is ancillary to other buildings or forms part of a group of related buildings is classified according to the function of the group as a whole.

Persons working. Figures relate to persons working on the jobs of contractors who undertake the erection of new buildings and of government authorities which erect new buildings on their own account. They include persons working on alterations, additions, repairs and maintenance when these jobs are undertaken by such contractors and authorities. Contractors are asked to give details of all persons working on their jobs *on a specified day*, including working principals, men working as or for sub-contractors and men temporarily laid off on account of weather. Because of the intermittent employment of various types of

sub-contractors on any particular job, it is sometimes difficult for contractors and authorities to provide precise particulars of the number of sub-contractors and the number of employees of sub-contractors working on their jobs on the specified day. This factor may cause some estimation by persons completing returns and some degree of understatement in figures shown in tables. On the other hand, because of frequent movement between jobs of some types of tradesmen (such as electricians) who may work on several jobs on the one day, a small element of duplication may occur. The figures *exclude* persons working on owner-built houses, and employees of builders who undertake only alterations, additions, repairs and maintenance.

New houses approved, commenced, completed and under construction

The next table provides a summary for 1972-73 of the number of new houses approved, commenced, completed and under construction in each State and Territory. For a graph showing the number of new houses commenced, completed and under construction over a ten year period see plate 29, below.

NEW HOUSES: NUMBER, 1972-73

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved	35,327	36,333	24,638	10,954	16,996	3,058	920	4,649	132,875
Commenced	30,938	32,998	22,549	10,319	15,998	2,795	993	4,306	120,896
Completed	28,565	28,260	20,696	8,977	13,780	2,384	973	3,683	107,318
Under construction at end of year	14,271	16,396	6,770	5,258	6,668	1,735	793	2,521	54,412

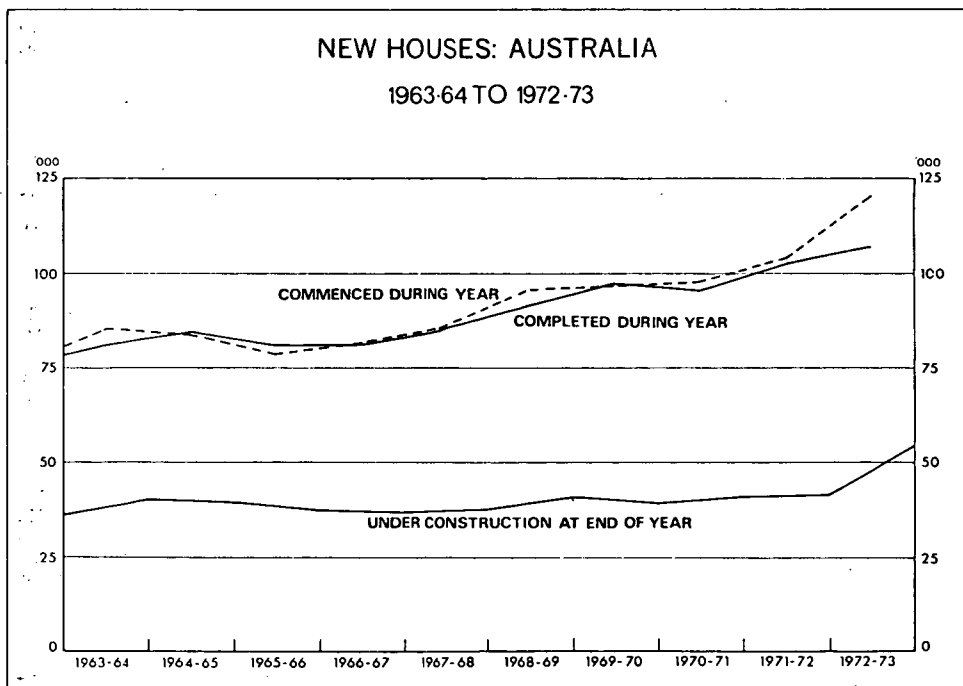


PLATE 29

The following table shows the number of *new houses approved* in each State or Territory, according to *private and government ownership*.

NEW HOUSES APPROVED, BY OWNERSHIP: NUMBER

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PRIVATE									
1968-69	28,102	22,357	12,443	5,704	12,912	2,206*	224	1,889	85,837
1969-70	27,496	23,538	13,371	6,335	12,280	2,123	599	2,236	87,978
1970-71	27,066	23,213	14,332	6,594	9,255	1,969	234	2,673	85,336
1971-72	27,535	26,908	18,213	7,245	10,833	1,996	298	2,748	95,776
1972-73	32,273	34,350	22,797	9,559	14,572	2,457	334	3,416	119,758
GOVERNMENT									
1968-69	4,226	1,969	1,856	2,082	1,567	488	633	1,009	13,830
1969-70	4,146	2,050	1,742	1,675	1,685	532	907	933	13,670
1970-71	4,109	1,466	2,049	2,151	2,570	612	889	972	14,818
1971-72	2,393	1,510	1,515	1,105	1,972	488	634	877	10,494
1972-73	3,054	1,983	1,841	1,395	2,424	601	586	1,233	13,117
TOTAL									
1968-69	32,328	24,326	14,299	7,786	14,479	2,694	857	2,898	99,667
1969-70	31,642	25,588	15,113	8,010	13,965	2,655	1,506	3,169	101,648
1970-71	31,175	24,679	16,381	8,745	11,825	2,581	1,123	3,645	100,154
1971-72	29,928	28,418	19,728	8,350	12,805	2,484	932	3,625	106,270
1972-73	35,327	36,333	24,638	10,954	16,996	3,058	920	4,649	132,875

The number of *new houses commenced* is invariably below the number approved due to approvals lapsing and plans being abandoned or replaced by later plans approved. The percentage of owner-built houses to total new houses has been falling continuously; in 1955-56 the percentage was 35.3 per cent compared with 13.1 per cent in 1972-73. This trend may be explained by such factors as the increased complexity of construction methods and the introduction and more strict enforcement of legal building standards.

The number of new houses commenced in each State and Territory by *contractors and owner-builders* is shown in the following table.

NEW HOUSES COMMENCED, CONTRACT-BUILT OR OWNER-BUILT NUMBER

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
CONTRACT-BUILT(a)									
1968-69	26,465	20,334	12,930	6,881	12,464	1,747	820	2,784	84,425
1969-70	26,155	21,352	13,373	7,542	11,716	1,877	754	3,128	85,897
1970-71	24,431	21,538	14,503	8,444	11,047	1,883	949	3,517	86,312
1971-72	23,879	24,130	16,958	8,512	11,778	1,521	1,162	3,600	91,540
1972-73	24,052	28,441	20,887	9,837	14,853	1,944	807	4,220	105,041
OWNER-BUILT									
1968-69	3,905	3,246	1,250	331	1,384	833	103	87	11,139
1969-70	4,078	3,223	1,093	398	1,283	805	96	48	11,024
1970-71	5,017	3,233	983	325	996	663	122	156	11,495
1971-72	5,678	3,470	1,304	372	800	710	210	120	12,664
1972-73	6,886	4,557	1,662	482	1,145	851	186	86	15,855
TOTAL									
1968-69	30,370	23,580	14,180	7,212	13,848	2,580	923	2,871	95,564
1969-70	30,233	24,575	14,466	7,940	12,999	2,682	850	3,176	96,921
1970-71	29,448	24,771	15,486	8,769	12,043	2,546	1,071	3,673	97,807
1971-72	29,557	27,600	18,262	8,884	12,578	2,231	1,372	3,720	104,204
1972-73	30,938	32,998	22,549	10,319	15,998	2,795	993	4,306	120,896

(a) Includes operations of government authorities.

The number of *new houses completed* represents the gross increase in the stock of houses. When comparing statistics for new houses commenced and completed it should be noted that owner-built houses have generally a longer period of construction than contract-built houses.

The following table shows the number of new houses completed in each State and Territory by *contractors and owner-builders*.

NEW HOUSES COMPLETED, CONTRACT-BUILT OR OWNER-BUILT: NUMBER

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
CONTRACT-BUILT(a)									
1968-69 . . .	24,360	19,390	12,857	6,574	11,616	1,905	674	2,436	79,812
1969-70 . . .	25,582	20,988	13,510	7,128	12,435	1,962	885	3,120	85,610
1970-71 . . .	24,349	21,718	13,685	7,966	10,862	1,719	761	3,099	84,159
1971-72 . . .	24,647	22,488	16,294	8,740	12,303	1,664	1,338	3,587	91,061
1972-73 . . .	22,234	24,729	19,156	8,564	12,842	1,659	815	3,552	93,551
OWNER-BUILT									
1968-69 . . .	4,434	3,341	1,411	380	1,224	799	66	79	11,734
1969-70 . . .	4,097	3,714	1,189	376	1,498	899	69	72	11,914
1970-71 . . .	4,702	3,461	1,000	342	1,059	544	94	70	11,272
1971-72 . . .	5,384	3,139	1,182	321	984	597	153	132	11,892
1972-73 . . .	6,331	3,531	1,540	413	939	725	158	131	13,768

(a) Includes operations of government authorities.

The number of *new houses completed* according to *private and government ownership*, is shown in the following table.

NEW HOUSES COMPLETED, BY OWNERSHIP: NUMBER

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
PRIVATE									
1968-69 . . .	25,503	21,334	12,548	5,110	11,007	1,969	156	1,612	79,239
1969-70 . . .	25,733	23,047	12,837	5,902	12,384	2,178	187	2,044	84,312
1970-71 . . .	24,931	23,110	12,879	6,353	9,648	1,636	244	2,425	81,226
1971-72 . . .	26,185	24,052	15,739	6,956	11,167	1,795	627	2,757	89,278
1972-73 . . .	26,213	27,300	18,968	7,530	11,723	1,842	292	2,883	96,751
GOVERNMENT									
1968-69 . . .	3,291	1,397	1,720	1,844	1,833	735	584	903	12,307
1969-70 . . .	3,946	1,655	1,862	1,602	1,549	683	767	1,148	13,212
1970-71 . . .	4,120	2,069	1,806	1,955	2,273	627	611	744	14,205
1971-72 . . .	3,846	1,575	1,737	2,105	2,120	466	864	962	13,675
1972-73 . . .	2,352	960	1,728	1,447	2,057	542	681	800	10,567
TOTAL									
1968-69 . . .	28,794	22,731	14,268	6,954	12,840	2,704	740	2,515	91,546
1969-70 . . .	29,679	24,702	14,699	7,504	13,933	2,861	954	3,192	97,524
1970-71 . . .	29,051	25,179	14,685	8,308	11,921	2,263	855	3,169	95,431
1971-72 . . .	30,031	25,627	17,476	9,061	13,287	2,261	1,491	3,719	102,953
1972-73 . . .	28,565	28,260	20,696	8,977	13,780	2,384	973	3,683	107,318

New houses completed by material of outer walls

The use of certain materials for outer walls is dictated by such factors as cost, durability, appearance and climatic conditions. Changes in the materials used over time indicate changes in the characteristics of the housing stock.

The following tables show the number of *new houses completed* in each State and Territory during 1972-73 and in Australia during the years 1968-69 to 1972-73, classified according to the *material of their outer walls*.

NEW HOUSES COMPLETED, BY MATERIAL OF OUTER WALLS: NUMBER, 1972-73

<i>Material of outer walls</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Brick, brick veneer, concrete and stone	22,736	25,817	12,115	8,124	12,492	2,018	531	3,676	87,509
Wood (weatherboard, etc.)	1,824	688	4,825	54	13	204	5	5	7,618
Asbestos-cement	5,123	1,724	3,402	756	1,259	125	397	1	12,787
Other	317	31	354	43	16	37	40	1	839
Total	30,000	28,260	20,696	8,977	13,780	2,384	973	3,683	108,753

NEW HOUSES COMPLETED, BY MATERIAL OF OUTER WALLS: NUMBER AUSTRALIA

<i>Material of outer walls</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Brick, brick veneer, concrete and stone	64,696	71,816	72,527	80,481	86,421
Wood (weatherboard, etc.)	10,554	9,967	8,237	8,204	7,531
Asbestos-cement	15,525	14,919	13,763	13,085	12,542
Other	771	822	904	1,183	824
Total	91,546	97,524	95,431	102,953	107,318

New flats approved, commenced, completed and under construction

The level of flat construction is highly variable and does not follow the regular pattern experienced in house construction. This can mainly be explained by the large extent of speculative building of private flats and also the generally larger size of such projects. Although construction of government owned flats is substantial, the proportion of government owned flats to total flats constructed is smaller than that of government owned houses to total houses.

The following table shows the number of new flats approved, commenced, completed and under construction for the year 1972-73. For a graph showing the number of new flats commenced, completed and under construction over a ten year period *see* plate 30, page 218.

NEW FLATS: NUMBER, 1972-73

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Approved	24,140	13,669	9,311	3,806	1,145	768	492	542	53,873
Commenced	21,208	12,548	7,083	4,112	1,236	765	535	461	47,948
Completed	19,348	9,923	5,743	4,217	920	781	448	446	41,826
Under construction at end of year	14,309	8,885	3,552	2,334	1,094	599	441	509	31,723

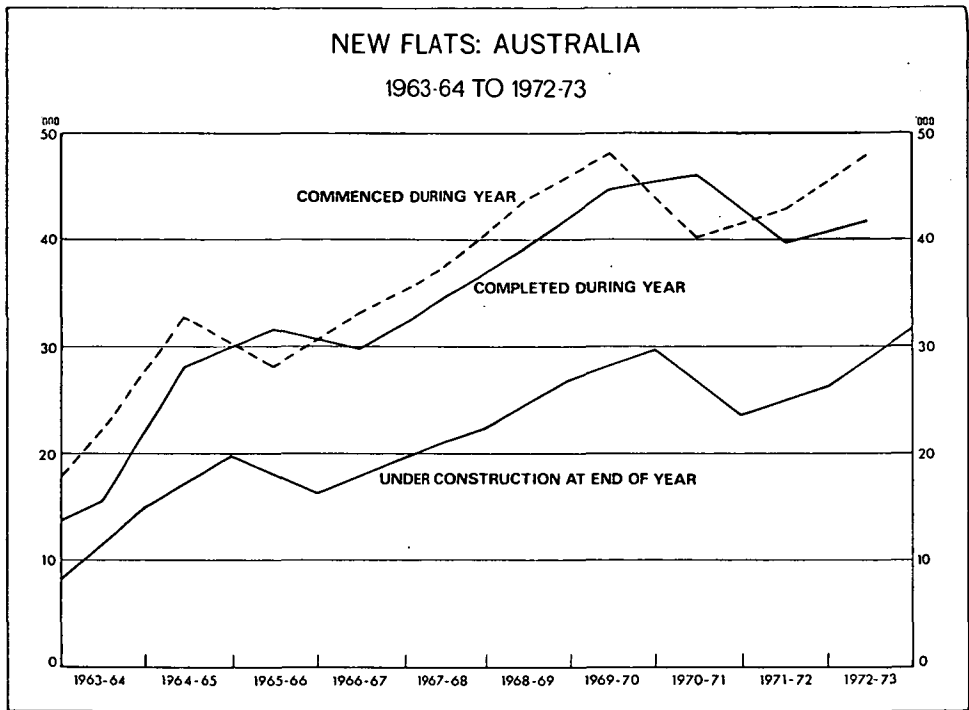


PLATE 30

The following table shows the number of *new flats approved* in each State or Territory according to *private and government ownership*.

NEW FLATS APPROVED, BY OWNERSHIP: NUMBER

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PRIVATE									
1968-69	21,258	13,134	2,474	2,419	5,493	432	381	299	45,890
1969-70	22,228	13,437	2,807	4,422	5,349	723	826	293	50,085
1970-71	16,742	8,612	4,409	4,993	1,281	548	179	246	37,010
1971-72	18,660	9,085	5,899	4,579	1,120	642	565	347	40,897
1972-73	22,302	12,872	8,827	3,578	890	719	452	542	50,182
GOVERNMENT									
1968-69	972	939	14	172	699	6	102	..	2,904
1969-70	1,089	1,344	..	74	1,323	58	202	108	4,198
1970-71	1,856	1,059	29	176	612	62	68	..	3,862
1971-72	868	1,218	223	96	135	267	74	198	3,079
1972-73	1,838	797	484	228	255	49	40	..	3,691
TOTAL									
1968-69	22,230	14,073	2,488	2,591	6,192	438	483	299	48,794
1969-70	23,317	14,781	2,807	4,496	6,672	781	1,028	401	54,283
1970-71	18,598	9,671	4,438	5,169	1,893	610	247	246	40,872
1971-72	19,528	10,303	6,122	4,675	1,255	909	639	545	43,976
1972-73	24,140	13,669	9,311	3,806	1,145	768	492	542	53,873

The number of *new flats commenced* in each State and Territory is shown in the following table.

NEW FLATS COMMENCED: NUMBER

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968-69 . . .	18,416	14,117	2,586	2,100	5,366	364	488	301	43,738
1969-70 . . .	21,471	13,505	2,438	3,526	5,839	641	350	288	48,058
1970-71 . . .	18,912	10,312	3,639	4,282	1,759	747	435	310	40,396
1971-72 . . .	19,516	10,335	5,324	4,405	1,340	860	634	412	42,826
1972-73 . . .	21,208	12,548	7,083	4,112	1,236	765	535	461	47,948

The following table shows the number of *new flats completed* in each State and Territory, according to *private and government ownership*.

NEW FLATS COMPLETED, BY OWNERSHIP: NUMBER

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
------	--------	------	-----	------	------	------	------	--------	-------

PRIVATE

1968-69 . . .	15,231	12,921	2,843	1,711	3,337	352	254	74	36,723
1969-70 . . .	17,901	12,672	2,434	2,612	4,915	490	338	259	41,621
1970-71 . . .	19,461	11,071	3,159	3,755	3,608	583	267	333	42,237
1971-72 . . .	16,453	8,821	4,482	4,114	992	598	378	192	36,030
1972-73 . . .	18,145	8,686	5,538	4,039	770	645	425	352	38,600

GOVERNMENT

1968-69 . . .	1,131	854	20	30	154	14	215	..	2,418
1969-70 . . .	873	1,320	2	45	681	12	133	1	3,067
1970-71 . . .	885	1,016	..	245	1,405	84	100	..	3,735
1971-72 . . .	1,536	1,270	13	70	603	169	110	..	3,771
1972-73 . . .	1,203	1,237	205	178	150	136	23	94	3,226

TOTAL

1968-69 . . .	16,362	13,775	2,863	1,741	3,491	366	469	74	39,141
1969-70 . . .	18,774	13,992	2,436	2,657	5,596	502	471	260	44,688
1970-71 . . .	20,346	12,087	3,159	4,000	5,013	667	367	333	45,972
1971-72 . . .	17,989	10,091	4,495	4,184	1,595	767	488	192	39,801
1972-73 . . .	19,348	9,923	5,743	4,217	920	781	448	446	41,826

Value of new buildings approved, commenced, completed and under construction

The following table summarises, the values of all new buildings approved, commenced, completed, under construction, the value of work done, and the value of work yet to be done in each State and Territory.

NEW BUILDINGS: VALUE
(**\$'000**)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
APPROVED									
1968-69	823,769	560,671	266,056	145,872	305,594	52,289	28,048	71,256	2,253,555
1969-70	975,091	684,134	306,010	189,052	380,681	59,539	68,434	103,384	2,766,325
1970-71	1,017,043	625,908	373,568	209,354	307,680	68,043	51,295	102,266	2,755,157
1971-72	1,097,749	763,836	411,672	238,940	293,340	70,086	53,507	95,716	3,024,846
1972-73	1,263,850	1,087,202	608,823	280,772	389,211	90,422	62,513	146,146	3,928,938
COMMENCED									
1968-69	814,678	575,994	268,821	150,145	297,684	56,200	29,901	65,015	2,258,438
1969-70	975,115	674,588	283,734	181,999	361,594	62,131	44,025	98,638	2,681,824
1970-71	1,104,352	672,037	383,190	217,912	317,880	70,189	57,593	115,726	2,938,879
1971-72	1,180,388	733,418	428,469	226,132	297,701	64,319	67,242	98,994	3,096,663
1972-73	1,365,861	1,048,141	584,517	272,299	363,006	90,607	72,827	145,589	3,942,846
COMPLETED									
1968-69	721,504	578,126	271,264	156,712	254,833	56,948	25,926	71,348	2,136,661
1969-70	808,202	629,109	311,079	147,638	303,396	66,452	43,406	73,036	2,382,318
1970-71	946,552	667,966	333,785	200,895	365,012	59,684	34,006	83,139	2,691,039
1971-72	1,138,253	677,381	397,748	215,036	331,440	69,717	71,132	90,367	2,991,074
1972-73	1,146,793	809,900	509,288	255,394	324,013	78,104	51,524	115,267	3,290,283
UNDER CONSTRUCTION AT END OF YEAR									
1968-69	626,267	451,906	177,913	108,939	194,278	51,896	29,121	54,150	1,694,470
1969-70	813,539	514,808	154,994	145,486	256,543	51,022	29,668	82,615	2,048,675
1970-71	986,280	520,378	211,182	174,376	209,675	63,465	52,971	116,892	2,335,219
1971-72	1,046,784	598,243	252,176	186,408	184,096	61,636	49,487	135,293	2,514,123
1972-73	1,319,571	860,390	335,012	210,844	225,219	76,522	69,708	172,428	3,269,694
VALUE OF WORK DONE DURING YEAR									
1968-69	762,546	580,374	287,704	144,297	270,012	58,785	27,746	63,886	2,195,350
1969-70	905,973	645,477	306,270	165,540	342,942	68,428	43,557	78,486	2,556,673
1970-71	1,028,476	677,474	345,769	209,716	347,022	65,446	47,446	94,284	2,815,633
1971-72	1,179,617	713,369	425,343	229,050	329,811	70,181	73,104	111,958	3,132,433
1972-73	1,277,708	882,786	524,395	262,277	323,806	78,145	60,531	132,723	3,542,369
VALUE OF WORK YET TO BE DONE ON BUILDINGS UNDER CONSTRUCTION AT END OF YEAR									
1968-69	361,832	226,647	84,167	60,346	115,335	28,060	15,512	28,076	919,975
1969-70	454,371	275,232	66,088	78,600	139,430	25,677	17,098	51,395	1,107,891
1970-71	549,064	274,561	110,131	98,807	110,402	32,691	27,352	74,785	1,277,793
1971-72	571,933	320,543	123,509	96,994	86,784	30,464	22,566	71,852	1,324,645
1972-73	718,760	513,407	191,238	114,264	128,519	45,458	37,661	92,092	1,841,398

The following table shows the values of approvals for houses and flats, other new buildings, and alterations and additions in Australia. Before 1 July 1966 additions of \$10,000 and over were included with new buildings in all States except New South Wales, where they were included in 'alterations and additions'. From 1 July 1966 alterations and/or additions of \$10,000 and over are included with new buildings in all States.

BUILDING APPROVED: VALUE, AUSTRALIA
(S'000)

Type of building	1968-69	1969-70	1970-71	1971-72	1972-73
Houses and flats	1,314,645	1,485,617	1,437,015	1,633,164	2,268,607
Other new buildings	938,910	1,280,708	1,318,143	1,391,684	1,660,326
<i>Total new buildings</i>	<i>2,253,555</i>	<i>2,766,325</i>	<i>2,755,157</i>	<i>3,024,846</i>	<i>3,928,938</i>
Alterations and additions	156,096	168,810	188,354	223,078	274,487
Total building	2,409,651	2,935,135	2,943,503	3,247,925	4,203,415
Private	1,902,675	2,317,867	2,300,021	2,605,494	3,468,400
Government	506,976	617,268	643,476	642,437	735,007

The following tables show the value of *all new buildings completed* in each State and Territory during 1972-73 and in Australia during the years 1968-69 to 1972-73, according to the *type of building*. The classification of non-residential buildings by type of building is according to the function a building is intended to serve.

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING: VALUE, 1972-73
(S'000)

Type of building	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Houses—									
Brick, brick veneer, concrete and stone	348,424	351,609	176,997	103,300	151,075	26,800	8,087	60,093	1,226,383
Wood, (weather-board, etc)	19,040	6,789	46,921	445	153	1,706	125	68	75,246
Asbestos-cement	47,526	13,400	35,555	6,180	13,785	761	6,507	10	123,724
Other	3,011	303	4,482	431	227	381	719	5	9,558
Total houses	418,000	372,099	263,956	110,357	165,238	29,648	15,437	60,176	1,434,912
Flats	199,628	82,668	52,717	30,333	7,308	6,542	4,365	3,752	387,315
<i>Total houses and flats</i>	<i>617,631</i>	<i>454,768</i>	<i>316,674</i>	<i>140,691</i>	<i>172,546</i>	<i>36,191</i>	<i>19,803</i>	<i>63,927</i>	<i>1,822,228</i>
Hotels, hostels, etc.	29,413	13,194	11,017	3,779	17,510	7,752	6,037	6,739	95,442
Shops	54,527	24,974	14,239	4,633	27,504	2,471	3,309	6,054	137,709
Factories	83,414	63,132	16,292	12,529	15,594	4,448	2,301	1,293	199,001
Offices	122,840	92,278	41,123	14,118	21,245	7,287	5,322	13,989	318,201
Other business premises	62,352	40,280	20,679	25,996	17,965	2,037	2,175	4,309	175,795
Education	69,129	65,226	38,612	23,570	24,767	10,654	6,478	11,750	250,185
Religion	4,777	3,578	1,623	897	680	289	104	315	12,263
Health	31,229	18,521	19,135	16,808	6,342	4,208	2,154	4,602	102,999
Entertainment and recreation	26,414	11,982	6,166	8,767	9,504	1,801	828	514	65,976
Miscellaneous	45,067	21,968	23,727	3,605	10,356	969	3,012	1,778	110,481
<i>Total other buildings</i>	<i>529,162</i>	<i>355,132</i>	<i>192,613</i>	<i>114,702</i>	<i>151,468</i>	<i>41,915</i>	<i>31,721</i>	<i>51,340</i>	<i>1,468,054</i>
Total new buildings	1,146,793	809,900	509,288	255,394	324,013	78,104	51,524	115,267	3,290,283

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING: VALUE, AUSTRALIA
(S'000)

<i>Type of building</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Houses—					
Brick, brick veneer, concrete and stone	705,906	830,364	897,144	1,060,811	1,226,383
Wood (weatherboard, etc.)	85,903	84,190	74,037	76,829	75,246
Asbestos-cement	116,030	118,190	118,297	119,949	123,724
Other	7,033	7,804	8,068	13,737	9,558
Total houses	914,871	1,040,543	1,097,548	1,271,329	1,434,912
Flats	267,262	338,884	368,427	337,869	387,315
Total houses and flats	1,182,133	1,379,426	1,465,974	1,609,195	1,822,228
Hotels, hostels, etc.	55,454	73,897	79,263	83,767	95,442
Shops	77,321	85,984	96,355	100,932	137,709
Factories	190,520	196,661	211,204	259,341	199,001
Offices	158,191	157,232	243,621	291,234	318,201
Other business premises	98,823	118,171	156,774	151,082	175,795
Education	161,402	161,256	180,796	214,404	250,185
Religion	16,132	11,828	13,719	12,488	12,263
Health	56,200	71,347	92,037	96,254	102,999
Entertainment and recreation	41,924	44,451	47,929	57,678	65,976
Miscellaneous	98,561	82,070	103,370	114,704	110,481
Total other buildings	954,529	1,002,888	1,225,064	1,381,885	1,468,054
Total new buildings	2,136,661	2,382,318	2,691,039	2,991,074	3,290,283

The following table shows the value of *all new buildings completed* in Australia classified by *type of building and private and government ownership*.

NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING AND OWNERSHIP: VALUE
AUSTRALIA
(S'000)

<i>Type of building</i>	<i>Private</i>			<i>Government</i>		
	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Houses—						
Brick, brick veneer, concrete and stone	827,511	987,011	1,159,760	69,635	73,801	66,624
Wood (weatherboard, etc.)	60,553	61,919	64,118	13,482	14,909	11,129
Asbestos-cement	81,726	86,891	99,477	36,570	33,059	24,249
Other	6,822	10,894	8,503	1,244	2,843	1,056
Total houses	976,616	1,146,715	1,331,856	120,932	124,616	103,057
Flats	341,047	309,177	361,524	27,383	28,685	25,791
Total houses and flats	1,317,667	1,455,897	1,693,380	148,311	153,297	128,848
Hotels, hostels, etc.	73,395	75,174	91,582	5,869	8,594	3,858
Shops	95,455	99,386	136,430	899	1,546	1,280
Factories	192,141	221,519	183,627	19,064	37,822	15,375
Offices	167,158	229,314	241,307	76,464	61,918	76,895
Other business premises	90,418	99,490	107,535	66,350	51,589	68,260
Education	33,611	36,358	30,596	147,189	178,049	219,591
Religion	13,719	12,488	12,263	..	..	..
Health	23,342	34,683	21,695	68,701	61,568	81,304
Entertainment and recreation	40,047	46,233	45,841	7,883	11,447	20,133
Miscellaneous	48,041	65,332	53,880	55,334	49,371	56,600
Total other buildings	777,323	919,978	924,758	447,747	461,900	543,296
Total new buildings	2,094,985	2,375,874	2,618,137	596,054	615,201	672,145

Persons working on jobs carried out by builders of new buildings

The following table shows the number of contractors, sub-contractors and wage earners working on jobs *carried out by builders of new buildings* in each State and Territory at 30 June 1973. It also shows the numbers of these persons classified according to their main building occupations and the type of building on which they were working.

PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS 30 JUNE 1973

INCLUDING CONTRACTOR AND SUB-CONTRACTOR PRINCIPALS ACTUALLY WORKING
ON JOBS BUT EXCLUDING PERSONS WORKING ON OWNER-BUILT HOUSES

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Contractors	3,984	3,699	2,377	710	771	338	79	359	12,317
Sub-contractors	11,884	12,737	5,801	4,464	4,274	842	322	2,103	42,427
Wage earners	41,369	28,105	22,555	10,809	12,564	4,226	1,751	4,724	126,103
Carpenters	16,672	14,097	11,490	3,780	4,001	2,069	598	1,769	54,476
Bricklayers	7,590	6,750	3,265	2,555	3,043	550	183	1,006	24,942
Painters	3,839	3,551	2,244	1,348	1,484	386	120	599	13,571
Electricians	3,596	2,890	1,625	1,088	1,331	383	170	472	11,555
Plumbers	5,163	4,651	2,989	1,490	1,657	393	170	513	17,026
Builders' labourers	8,909	5,605	4,026	2,195	2,479	731	485	1,304	25,734
Other	11,468	6,997	5,094	3,527	3,614	894	426	1,523	33,543
New houses and flats	25,833	23,943	16,235	8,357	9,229	2,704	661	3,887	90,849
Other buildings(a)	28,273	19,886	13,830	7,349	6,808	2,446	1,474	2,987	83,053
Repairs and maintenance(b)	3,131	712	668	277	1,572	256	17	312	6,945
Total	57,237	44,541	30,733	15,983	17,609	5,406	2,152	7,186	180,847

(a) Includes persons working on alterations and additions carried out by builders of new buildings. (b) Carried out by builders of new buildings.

The number of persons in each State and Territory working on jobs *carried out by builders of new buildings* at the end of June in recent years is shown in the following table.

PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS

INCLUDING CONTRACTOR AND SUB-CONTRACTOR PRINCIPALS ACTUALLY WORKING
ON JOBS BUT EXCLUDING PERSONS WORKING ON OWNER-BUILT HOUSES

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1969	55,909	46,462	26,077	12,019	19,201	5,618	1,662	4,534	171,482
1970	57,928	45,190	23,620	13,282	19,593	5,493	1,668	5,313	172,087
1971	58,816	42,243	25,050	13,474	17,792	5,734	2,643	5,828	171,580
1972	60,376	41,106	26,171	14,509	15,497	4,964	1,875	5,581	170,079
1973	57,237	44,541	30,733	15,983	17,609	5,406	2,152	7,186	180,847

Average value and average size of private contract built houses

The following table shows the average commencement value, average value per square metre and average size in square metres of *private contract* built houses commenced in each State Capital City Statistical Division. The average commencement value and average value per square metre are based on the final contract price of houses when complete (or estimates of this price) provided by contractors at the time of commencement of building work.

**AVERAGE COMMENCEMENT VALUE, AVERAGE VALUE PER SQUARE METRE AND
AVERAGE SIZE OF PRIVATE CONTRACT BUILT HOUSES COMMENCED: CAPITAL
CITIES(a)**

<i>Period</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Canberra</i>	<i>All capital cities</i>
AVERAGE COMMENCEMENT VALUE OF PRIVATE CONTRACT BUILT HOUSES (\$)								
1970-71	14,106	11,680	10,742	11,100	12,337	13,082	15,587	12,376
1971-72	14,963	12,511	11,662	12,426	12,292	13,731	16,963	13,076
1972-73	16,651	14,056	13,244	13,752	12,944	15,647	19,370	14,422
AVERAGE VALUE PER SQUARE METRE OF PRIVATE CONTRACT BUILT HOUSES COMMENCED (\$)								
1970-71	104.6	88.4	93.0	89.7	97.8	101.3	108.6	95.6
1971-72	108.7	92.8	99.7	96.8	98.0	104.2	115.2	99.6
1972-73	114.5	101.9	109.9	105.3	98.4	114.5	122.0	106.5
AVERAGE SIZE OF PRIVATE CONTRACT BUILT HOUSES COMMENCED (SQUARE METRES)								
1970-71	135	132	115	124	126	129	144	129
1971-72	138	135	117	128	125	132	147	131
1972-73	145	138	121	131	132	137	159	135

(a) Statistical Divisions, except for Canberra.

Intercensal estimates of stock of dwellings

The following table shows statistics of the estimated number of private self-contained dwelling units at 30 June 1972 and 1973. For purposes of comparison the number of private self-contained dwelling units at the Censuses of Population and Housing, 30 June 1966 and 1971 are also shown. Private self-contained dwelling units include those private dwellings embraced by the 1971 Census categories 'private house', 'villa unit' and 'self-contained flat'. Dwellings which are embraced by the 1971 Census category 'other private dwellings' are excluded from the statistics. For further detail see page 206.

The estimated number of dwelling units for 1972 and 1973 represents the stock as ascertained at the Census of Population and Housing, 30 June 1971, plus the number of new dwelling units completed, minus an estimate of the net loss resulting from demolitions less conversions since the Census. Intercensal estimates of dwelling stock subsequent to 1971 will be subject to revision following the availability of more accurate benchmark information from the 1976 Census of Population and Housing.

INTERCENSAL ESTIMATES OF STOCK OF DWELLINGS

State	Census 30 June 1971		30 June 1972 (estimate)		30 June 1973 (estimate)		Annual rate of increase since Census 30 June 1971		Annual rate of increase since Census 30 June 1972	
	Census, 30 June 1966	No.	No.	per cent	No.	per cent	No.	per cent	No.	per cent
Sydney Statistical Division	729,513	870,195	3.6	896,918	3.1	922,430	2.8	3.0		
Remainder of State	494,560	568,234	2.8	584,998	3.0	602,293	3.0	3.0		
<i>Total New South Wales</i>	<i>1,224,073</i>	<i>1,438,429</i>	<i>3.3</i>	<i>1,481,916</i>	<i>3.0</i>	<i>1,524,723</i>	<i>2.9</i>	<i>3.0</i>		
Melbourne Statistical Division	629,288	765,956	4.0	791,108	3.3	816,631	3.2	3.2		
Remainder of State	281,550	311,143	2.1	316,029	1.6	321,822	1.8	1.6		
<i>Total Victoria</i>	<i>910,838</i>	<i>1,077,099</i>	<i>3.4</i>	<i>1,107,137</i>	<i>2.8</i>	<i>1,138,453</i>	<i>2.8</i>	<i>2.8</i>		
Brisbane Statistical Division	216,425	256,732	3.5	267,378	4.1	279,899	4.7	4.4		
Remainder of State	247,224	287,095	3.0	297,150	3.5	309,449	4.1	3.9		
<i>Total Queensland</i>	<i>463,649</i>	<i>543,827</i>	<i>3.2</i>	<i>564,528</i>	<i>3.8</i>	<i>589,348</i>	<i>4.4</i>	<i>4.1</i>		
Adelaide Statistical Division	223,529	261,253	3.1	270,969	3.7	280,703	3.6	3.6		
Remainder of State	91,837	105,413	2.8	107,603	2.1	109,952	2.2	2.1		
<i>Total South Australia</i>	<i>315,366</i>	<i>366,666</i>	<i>3.0</i>	<i>378,572</i>	<i>3.2</i>	<i>390,655</i>	<i>3.2</i>	<i>3.2</i>		
Perth Statistical Division	159,185	212,429	5.9	222,705	4.8	233,675	4.9	4.9		
Remainder of State	72,526	90,224	4.4	94,193	4.4	96,492	2.4	3.4		
<i>Total Western Australia</i>	<i>231,711</i>	<i>302,653</i>	<i>5.4</i>	<i>316,898</i>	<i>4.7</i>	<i>330,167</i>	<i>4.2</i>	<i>4.4</i>		
Hobart Statistical Division	38,918	45,723	3.3	46,840	2.6	48,313	3.1	2.9		
Remainder of State	65,501	73,872	2.4	75,371	1.9	76,812	1.9	1.9		
<i>Total Tasmania</i>	<i>104,419</i>	<i>119,595</i>	<i>2.8</i>	<i>122,211</i>	<i>2.2</i>	<i>125,125</i>	<i>2.4</i>	<i>2.3</i>		
Darwin	4,464	7,994	12.4	9,066	13.4	9,995	10.2	11.8		
Remainder of Territory	2,571	5,866	18.0	6,766	15.3	7,256	7.2	11.3		
<i>Total Northern Territory</i>	<i>7,035</i>	<i>13,860</i>	<i>14.5</i>	<i>15,832</i>	<i>14.2</i>	<i>17,251</i>	<i>9.0</i>	<i>11.6</i>		
Canberra	23,745	38,654	10.3	42,524	10.0	46,567	9.5	9.7		
Remainder of Territory	637	598	-1.3	609	1.8	631	3.6	2.8		
<i>Total Australian Capital Territory</i>	<i>24,382</i>	<i>39,252</i>	<i>10.0</i>	<i>43,133</i>	<i>9.9</i>	<i>47,198</i>	<i>9.4</i>	<i>9.6</i>		
Capital City Statistical Divisions(a)	2,025,067	2,458,936	4.0	2,547,508	3.4	2,638,213	3.6	3.5		
Remainder of States	1,256,406	1,442,445	2.8	1,482,719	3.1	1,524,707	2.8	3.0		
<i>Total Australia</i>	<i>3,281,473</i>	<i>3,901,381</i>	<i>3.5</i>	<i>4,030,227</i>	<i>3.3</i>	<i>4,162,920</i>	<i>3.3</i>	<i>3.3</i>		

(a) Includes Canberra and Darwin.

Government activities in the housing field

Housing Agreements between Australian and State Governments

In the past, Australian Government activities in the housing field have in the main included the provision of moneys to State Governments under various agreements; financial assistance to Defence (and eligible ex-service) personnel in the erection and purchase of homes; assistance to young married couples under the Homes Savings Grant Act; the operations of the Housing Loans Insurance Corporation; assistance in the provision of accommodation for the aged; and the provision of homes in the Territories. The Housing Department was concerned with all of these activities except the last. The provision of houses and associated works in the Territories was the concern of the Departments responsible for the administration of the Territories and the Department of Works which was also responsible for the planning, execution and maintenance of Australian Government works.

On 30 November 1973 the Department of Housing was amalgamated with the Department of Works to form the Department of Housing and Construction. The new Department undertakes the administrative responsibilities of the two former Departments in the fields of housing and Australian Government works, including advice to the Minister on economic, sociological and technological aspects of national housing policy; provision of technical advice to the Australian Government in

respect of individual major works proposals and the building and construction industry in general; provision of specialised architectural and engineering advice to Australian Government Departments; and the carrying out of building research.

Under successive Housing Agreements with the States the Australian Government has made substantial long-term loans to the States for the provision of housing.

The 1945 Agreement. In November 1945 the Australian Government entered into an Agreement with the Governments of the States whereby it would provide finance for housing projects and the State Governments would undertake the building of such projects. Between 1945-46 and 1955-56, under this Agreement, the Australian Government advanced to the States a total of \$481,118,000.

Initially, dwellings constructed under the 1945 Agreement were only sold to tenants if the tenant was able to arrange payment of the full purchase price to the State immediately on sale. Subsequent amendments to the Agreement progressively eased conditions of sale. For information on the conditions of sale, etc., under the 1945 Agreement see Year Book No. 48, page 367.

The 1956 Agreement. In 1956 the Australian and State Governments entered into a new Agreement under which added emphasis was placed on the construction of dwellings for private ownership. The Agreement provided that part of the loans advanced to each State was to be advanced to building societies and other approved institutions for lending to private home builders and purchasers. The balance of the amounts advanced to each State was used by the States for the erection of dwellings for either rental or sale. The Australian Government was entitled to specify that up to five per cent of the moneys allocated for the erection of dwellings by the State be set aside for the erection of dwellings for serving members of the defence forces. For features of the 1956 Commonwealth and State Housing Agreement see Year Book No. 48, pages 367-8.

The 1961 Agreement. The period during which advances to the States could be made under the 1956 Agreement terminated on 30 June 1961. A new Agreement was entered into which extended for a further five years the period during which advances could be made and also amended the 1956 Agreement in certain respects concerning funds for the erection of dwellings for rental to servicemen and the rate of interest payable on Australian Government advances.

The 1966 Agreement. An agreement was entered into which extended for a further five years the period during which advances could be made, and also amended the 1956-1961 Agreement in certain respects concerning the definition of 'member of the forces', the erection by the States of blocks of flats in metropolitan areas, the standard of dwellings to be built for rental to servicemen, and the provision of finance to home builders in rural areas.

For further information regarding the 1961 and 1966 Agreements see Year Book No. 53, pages 276-7, and Year Book No. 58, pages 208-9.

States Grants (Housing) Act 1971-1973. The 1956-66 Housing Agreement expired on 30 June 1971 and was not further renewed. Instead, the Australian and State Governments agreed upon a new arrangement under which the provisions contained in the Housing Agreement would be substantially continued for a period of five years up to 30 June 1976. In accordance with the Act financial assistance is being made available principally in the form of non-repayable interest-free grants for specific purposes.

For further information regarding the *States Grants (Housing) Act 1971* see Year Book No. 59, page 210.

Housing Agreement (Servicemen)

An Agreement was concluded between the Australian and State Governments to take effect for five years from 1 July 1971, to provide separately for the erection by the States of dwellings for allotment to servicemen. Construction programs are negotiated annually for which the full capital cost is advanced by the Australian Government as required by the States.

1973 Housing Agreement

With effect from 1 July 1973, advances will be made by the Australian Government to the States for welfare housing under this Agreement. This arrangement replaces that contained in the *States Grants (Housing) Act* from that date, with the exception that the Rental Assistance Grant of \$1.25 million will continue to be paid in respect of each financial year to and including 1975-76.

The rate of interest payable on advances made during the five-year term of the Agreement will be constant at the very low figure of 4 per cent for advances to the State Housing Authorities and 4.5 per cent for advances allocated to the States' Home Builders' Accounts for lending to eligible prospective home owners.

Sales of houses completed by the State Housing Authorities in the five years commencing 1 January 1974 are limited to 30 per cent of the total, except in the case of Tasmania where the limit is somewhat higher. The remainder are added to the stock of houses retained for rental to eligible persons and families. Eligibility for State Housing Authority accommodation is limited, in the case of a family, by a needs test whereby the income of the main breadwinner should not be greater than 85 per cent of average weekly earnings, plus \$2 for each child beyond the second. The needs test to determine eligibility for Home Builders' Account loans is slightly higher.

Operations under the States Grants (Housing) Act and the Housing Agreement (Servicemen)

The following table shows the results of operations under the *States Grants (Housing) Act 1971-1973* and the *Housing Agreement (Servicemen)* during 1972-73. Corresponding figures for 1971-72 appear in Year Book No. 59, page 211.

STATES GRANTS (HOUSING) ACT 1971-73: SUMMARY 1972-73

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
HOUSING FUNDS \$'000							
Allocation of State loan moneys for housing	57,200	37,500	15,500	29,500	15,000	8,500	163,200
State housing authorities(a)	40,040	26,250	12,150	14,000	8,700	5,950	107,090
Home builders' account(b)	17,160	11,250	3,350	15,500	6,300	2,550	56,110
Amounts drawn by institutions	31,415	18,202	5,247	18,560	7,048	3,536	84,008
Housing Agreement (Servicemen) advances	3,539	2,019	400	44	161	..	6,163
Advances by Australian Government(c)	3,500	1,500	350	500	400	300	6,550
NUMBER OF DWELLINGS							
State housing program—							
Commenced	2,550	2,222	1,297	1,278	1,577	596	9,520
Completed	2,174	1,764	1,440	1,162	848	624	8,012
Under construction at 30 June 1973	2,361	2,032	455	1,334	1,130	293	7,605
Home builders' account—							
Purchased—							
New	822	728	299	768	319	116	3,052
Other	826	..	..	..	..	163	989
New construction—							
Approved	1,077	698	232	2,030	406	140	4,583
Commenced	987	892	221	1,911	378	173	4,562
Completed	1,002	1,255	234	1,872	293	167	4,823
Service housing—							
Agreed program	502	105	319	3	2	6	937
Completed(d)	406	59	16	..	13	..	494
Sold under—							
1945 agreement	97	592	202	..	99	(e)	990
1956-1966 agreements	187	185	831	5	167	333	4,184
States Grants (Housing) Act 1971	886	569		366	655		

(a) The maximum amount is 70 per cent of the State loan moneys for housing. (b) The minimum amount must be 30 per cent of the State loan moneys for housing. (c) Special advance by the Australian Government under the *Housing Assistance Act 1973* to enable the State Housing Authorities to commence more dwellings in 1972-73 for rental. (d) Also included in State housing program above and may include completions of houses for servicemen programmed in previous years. (e) Tasmania did not operate under the 1945 Agreement after August 1950.

Dwellings for Aged Pensioners Scheme

This Scheme is directed towards those in the community considered to be most in need of housing assistance. These are single eligible pensioners living alone in unsuitable private accommodation and paying too high a proportion of their pensions in rent. Most State housing authorities have for many years been building accommodation for aged persons, and Australian Government assistance under this Scheme was introduced to supplement the States' efforts and to effect a more rapid reduction in the waiting lists with State housing authorities.

Under the *States Grants (Dwellings for Aged Pensioners) Act 1969* an amount of \$25 million is being made available to the States over a period of five years from 1969-70 to 1973-74 for construction by them of single self-contained accommodation for allocation, at rents they can afford to pay, to single eligible pensioners in receipt of supplementary assistance under the *Social Services Act 1947-1972* or the *Repatriation Act 1920-1972*.

Building Schemes approved so far under the Act are shown in the following table. Typical rents for these units are in the vicinity of \$3.00 a week.

DWELLINGS FOR AGED PENSIONERS SCHEME: APPROVALS

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Number of building schemes approved—							
1969-70	19	9	..	8	..	1	37
1970-71	26	13	4	3	9	4	59
1971-72	27	2	20	13	13	6	81
1972-73	16	7	24	1	3	3	54
Number of units in approved schemes—							
1969-70	229	316	..	100	..	20	665
1970-71	269	295	18	50	104	32	768
1971-72	636	192	154	190	108	35	1,315
1972-73	248	96	169	8	27	18	566
Estimated cost of approved schemes—							
1969-70 \$'000	1,299	1,675	..	433	..	130	3,537
1970-71 \$'000	1,660	2,291	136	238	702	138	5,165
1971-72 \$'000	5,871	1,785	1,286	1,068	603	262	10,875
1972-73 \$'000	1,894	773	1,444	50	152	108	4,421

Defence service homes

The *Defence Service Homes Act 1918-1973*, formerly the *War Service Homes Act 1918-1971*, makes provision for assistance to be granted to persons who satisfy the eligibility conditions set out in the Act, to enable them to acquire on concessional terms a soundly constructed home that they would occupy as a residence.

Persons eligible for assistance under the Act include members of the Australian forces and nursing services enlisted or appointed for or employed on active service outside Australia or on a ship of war during the 1914-18 and 1939-45 Wars and persons who served in the warlike operations in Korea or Malaya or who have served on 'special service' as defined in the *Repatriation (Special Overseas Service) Act 1962-1973*. 'Special service' includes 'special duty' in an area which by reason of warlike operations or a state of disturbance has been declared a 'special area' under the Repatriation (Special Overseas Service) Act. The areas declared as a 'special area' under the Act are:

Vietnam (Southern Zone) from 31 July 1962;

certain areas of Borneo, Sabah and Sarawak from 8 December 1962 to 30 September 1967;

certain areas of Malaya from 28 May 1963;

Malaysia (the remainder) and Singapore from 7 July 1965 to 30 September 1967;

Vietnamese waters from 1 March 1967.

The categories of eligible persons also include the widow and, in some circumstances, the widowed mother of an eligible person and persons domiciled in Australia and employed in certain sea-going service during the 1914-18 and 1939-45 Wars.

In May 1973 the Act was amended and the definition of 'eligible person' was extended to include members of the Forces who serve on continuous full-time service, and national servicemen whose period of service ended not earlier than 7 December 1972 and meets certain prescribed conditions.

The maximum amount of loan or advance which may be granted under the *Defence Service Homes Act 1918-1973* is \$12,000. The period of repayment may be up to forty-five years. In the case of a widow or widowed mother of an Australian ex-serviceman, the period may be extended to a maximum of fifty years.

The Director of Defence Service Homes is responsible for the execution of the Defence Service Homes Act subject to the directions of the Minister for Housing and Construction.

Operations under the Defence Service Homes Act

The following tables give details of the operations under the Defence Service Homes Act in the year 1972-73 and from the inception of the scheme on 6 March 1919 to 30 June 1973. The earliest single year for which details are given in the tables is 1968-69; for earlier years *see* previous issues of the Year Book. The figures shown include operations in Papua New Guinea and Norfolk Island.

DEFENCE SERVICE HOMES ACT: OPERATIONS, AUSTRALIA, 1972-73
AND TO 30 JUNE 1973

	1972-73			From inception to 30 June 1973		
	Eligibility established from service in—			Eligibility established from service in—		
	1914-18 War	1939-45 War, Korea, etc.(a)	Total	1914-18 War	1939-45 War, Korea, etc.(a)	Total
Applications received . . . No.	220	11,467	11,687	119,319	453,138	572,457
Applications approved . . . „	156	7,269	7,425	58,699	274,807	333,506
Homes purchased . . . „	131	4,859	4,990	20,570	146,903	167,473
Homes built, or assistance given to build them . . . „	7	912	919	24,159	72,607	96,766
Mortgages discharged . . . „	18	1,449	1,467	4,346	37,703	42,049
<i>Total homes provided</i> . . . „	<i>156</i>	<i>7,220</i>	<i>7,376</i>	<i>49,075</i>	<i>257,213</i>	<i>306,288</i>
Transfers and resales . . . „	24	387	411	9,673	16,242	25,915
Total capital expenditure \$'000	n.a.	n.a.	74,326	n.a.	n.a.	1,566,076
Total receipts . . . „	n.a.	n.a.	(b)97,622	n.a.	n.a.	(c)1,177,462

(a) Korea, Singapore, Malaysia or Vietnam (Southern Zone) and Vietnamese waters. (b) All receipts for year less repayments under Widows' Relief Scheme. (c) Includes interest paid on expenditure on account of Widows' Relief Scheme.

DEFENCE SERVICE HOMES ACT: OPERATIONS, AUSTRALIA

Year	Number of—					Total	Total capital expenditure	Total receipts
	Applications received	Homes provided						
		Homes purchased (a)	Homes built(b)	Mortgages discharged				
1968-69 . . .	10,715	4,668	767	1,105	6,540	\$'000 50,191	\$'000 72,622	
1969-70 . . .	10,940	4,643	796	1,225	6,664	55,000	77,911	
1970-71 . . .	10,174	5,031	1,040	1,231	7,302	61,000	78,483	
1971-72 . . .	11,465	5,025	830	1,266	7,121	65,000	83,496	
1972-73 . . .	11,687	4,990	919	1,467	7,376	74,326	97,622	

(a) Homes purchased with assistance under the Defence Service Homes Act. (b) Or assistance given to build a home.

DEFENCE SERVICE HOMES ACT: ADVANCES FOR HOUSING AND NUMBER OF HOMES PROVIDED

Period or date	N.S.W. (a)	Vic.	Qld (b)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
TOTAL CAPITAL ADVANCED DURING YEAR (\$'000)									
1968-69	19,000	14,000	7,908	3,468	3,750	1,350	2	712	50,190
1969-70	21,300	14,550	8,900	4,048	4,100	1,300	52	750	55,000
1970-71	23,052	16,850	9,721	4,288	4,675	1,530	92	792	61,000
1971-72	21,680	18,770	11,095	5,971	4,623	1,670	89	1,102	65,000
1972-73	23,858	21,497	13,443	6,137	5,986	2,050	71	1,284	74,326

NUMBER OF SECURITIES IN FORCE

At end of June—									
1969	64,319	54,682	24,642	16,598	18,194	4,124	46	1,103	183,708
1970	64,623	54,804	25,021	16,593	18,017	4,168	49	1,164	184,439
1971	65,028	55,116	25,446	16,621	17,954	4,245	61	1,236	185,707
1972	64,731	55,338	25,683	16,710	17,769	4,295	69	1,318	185,913
1973	63,590	54,933	25,497	16,618	17,597	4,341	68	1,399	184,043

VALUE OF ADVANCES OUTSTANDING (\$'000)

At end of June—									
1969	340,331	264,336	111,744	75,916	87,421	19,791	(c)	(d)	899,539
1970	345,620	267,047	115,835	76,575	86,776	20,223	(c)	(d)	912,076
1971	352,150	271,295	120,595	77,469	87,091	20,848	(c)	(d)	929,448
1972	354,389	276,348	125,180	79,367	86,641	21,466	(c)	(d)	943,391
1973	354,216	280,040	128,229	80,762	86,843	22,263	(c)	(d)	952,353

NUMBER OF HOMES PROVIDED

1968-69	2,492	1,820	1,025	451	486	178	..	88	6,540
1969-70	2,526	1,817	1,092	508	454	168	6	93	6,664
1970-71	2,785	1,989	1,180	537	512	191	11	97	7,302
1971-72	2,330	2,078	1,248	664	463	202	10	126	7,121
1972-73	2,302	2,173	1,298	648	597	218	9	131	7,376

(a) Includes Norfolk Island. (b) Includes Papua New Guinea. (c) Included in South Australia. (d) Included in New South Wales.

In addition to the homes provided under the Defence Service Homes Act and shown above, 2,943 homes, which had been provided originally under the Housing Agreements with the States, have been taken over in accordance with those Agreements.

Homes Savings Grant Scheme

The administration of the Homes Savings Grant Scheme is a function of the Department of Housing and Construction. The purpose of the Scheme is to assist young married persons, and young widowed or divorced persons with dependent children, to purchase or build their own homes. A further objective is to increase the proportion of total savings available for housing purposes by encouraging young people to save with those institutions which provide the bulk of housing finance. The Scheme is governed by the *Homes Savings Grant Act 1964-1973*. The Act authorises the payment of grants from the National Welfare Fund.

The Scheme provides for the payment of grants of \$1 for every \$3 saved by eligible persons under 36 years of age for the first home they own after marriage. The savings must be made over a period of at least three years and held in an approved form. The maximum grant to a married couple, or to husband or wife if only one is eligible, or to a widowed or divorced person, is \$750 on savings of \$2,250 or more (or \$500 on savings of \$1,500 or more if the contract to buy or build the home was

made, or the building of the home as an owner-builder began, before 16 August 1972). Smaller grants down to a minimum of \$10 are payable on lesser amounts saved. To be eligible for the grant, a person must be married, or widowed or divorced, with one or more dependent children, and must have—or must be married to a person who has—entered into a contract to buy a home or have one built, or begun to build a home as an owner-builder. The person must be under 36 years of age at the time of marriage and at the date of the contract to buy or build or the date building began; must have either been an Australian citizen or lived in Australia during the three years immediately preceding that date; and must also have saved in Australia in an approved form throughout that period. Those three years are known as the applicant's savings years'. The grant is payable in respect of existing homes and homes being built. Flats and home-units may also be eligible provided separate title can be obtained. The value of the home, including the land, the house itself and any other improvements, must not exceed \$22,500 (or \$17,500 if the contract to buy or build the home was made, or the building of the home as an owner-builder began, before 16 August 1972). Most homes are eligible, the main exception being homes purchased from State housing authorities which have been built with moneys advanced by the Australian Government under the Housing Agreements at concessional rates of interest or where the terms of purchase have been subsidised by reason of financial assistance to the State under the *States Grants (Housing) Act 1971-1973*.

The main forms of savings acceptable under the Scheme are accounts with savings banks and fixed deposits with trading banks (but not cheque accounts), and deposits with or shares in registered building or co-operative housing societies. Savings spent in connection with the purchase or construction of the home prior to the date of the contract to buy or build the home, or the date building began, are also acceptable. Savings held with a credit union are acceptable provided the particular credit union has become an approved credit union for the purposes of the Scheme. The amount of savings that qualify for a grant is the sum of the amounts by which the acceptable savings have increased each year, up to a limit of \$900 in any one savings year (\$600 if the contract date was before 16 August 1972), added to the acceptable savings held at the start of the three-year savings period.

Full details of the Scheme are set out in the official pamphlet *A Grant for Your Home* available from banks, building and housing societies, post offices, and offices of the Department of Housing and Construction throughout Australia. Additional statistical information is contained in the Annual Reports by the Secretary, Department of Housing, on the *Homes Savings Grant Act 1964-1973*, which are available from the Australian Government Publishing Service Bookshops.

Operations under the Home Savings Grant Scheme

Particulars of applications received and approved during 1972-73 and during the period from 20 July 1964, when the Scheme commenced to operate, to 30 June 1973 are set out below.

HOME SAVINGS GRANT SCHEME: OPERATIONS, 1972-73

		N.S.W.	Vic.	Qld	S.A.(a)	W.A.	Tas.	A.C.T. (b)	Aust.
Applications received	No.	11,693	17,375	7,341	5,346	3,640	1,480	385	47,260
Applications approved(c)	"	9,735	15,309	6,624	4,671	2,728	1,451	329	40,847
Grants approved	\$'000	5,121	8,338	3,287	2,388	1,314	716	179	21,343
Average grant approved	\$	526	545	496	511	482	494	543	523
Expenditure from National Welfare Fund	\$'000	5,087	8,331	3,282	2,379	1,314	710	184	21,287

(a) Includes Northern Territory. (b) Includes Queanbeyan, N.S.W. (c) Includes applications received on or before 30 June 1972 and approved after that date.

HOME SAVINGS GRANT SCHEME: OPERATIONS, 1968-69 TO 1972-73 AND TO 30 JUNE 1973

Year	Applications received	Applications approved	Grants approved	Average grant approved	Expenditure from National Welfare Fund
			\$'000	\$	\$'000
1968-69	34,485	30,630	12,704	415	13,015
1969-70	33,699	28,828	12,364	429	12,336
1970-71	39,796	35,778	15,763	441	15,200
1971-72	41,735	38,674	16,970	439	17,397
1972-73	47,260	40,847	21,343	523	21,287
Total from 20 July 1964	326,520	289,769	129,435	447	129,115

Homes qualifying for grants

The following two tables contain particulars of homes in respect of which grants were approved during 1972-73. As grants are payable only to persons under 36 years of age and in respect of homes costing no more than a prescribed amount (\$17,500 if acquired before 16 August 1972), these statistics should not be regarded as being applicable to home owners in general.

**HOME SAVINGS GRANT APPLICATIONS APPROVED(a): MANNER OF ACQUISITION
TOTAL VALUE, AND AVERAGE VALUE OF HOMES (INCLUDING LAND), 1972-73**

	N.S.W.	Vic.	Qld	S.A.(b)	W.A.	Tas.	A.C.T.(c)	Aust.
Purchase of house(d)—								
Number of approvals	6,046	10,524	4,405	3,296	1,371	1,104	181	26,927
Total value(e) . . . \$'000	89,666	152,269	54,521	44,108	18,767	12,924	3,384	375,639
Average value(e) . . . \$	14,831	14,469	12,377	13,382	13,689	11,706	18,697	13,950
Purchase of flat or home unit—								
Number of approvals	1,086	239	45	59	53	5	2	1,489
Total value(e) . . . \$'000	18,243	3,343	644	714	701	51	25	23,721
Average value(e) . . . \$	16,798	13,985	14,311	12,102	13,229	10,242	12,525	15,931
Home built under contract—								
Number of approvals	2,353	4,189	1,951	1,254	1,256	256	132	11,391
Total value(f) . . . \$'000	36,501	66,025	27,660	19,490	19,835	3,718	2,441	175,670
Average value(f) . . . \$	15,513	15,761	14,177	15,542	15,792	14,524	18,492	15,422
Owner-built home—								
Number of approvals	250	357	223	62	48	86	14	1,040
Total value(g) . . . \$'000	3,164	5,345	2,717	781	679	1,163	228	14,077
Average value(g) . . . \$	12,655	14,976	12,183	12,592	14,138	13,525	16,284	13,536
All homes—								
Number of approvals . . .	9,735	15,309	6,624	4,671	2,728	1,451	329	40,847
Total value . . . \$'000	147,574	226,982	85,542	65,093	39,982	17,856	6,078	589,107
Average value . . . \$	15,159	14,827	12,914	13,935	14,656	12,306	18,475	14,422

(a) Includes applications received on or before 30 June 1972 and approved after that date. (b) Includes Northern Territory. (c) Includes Queanbeyan, N.S.W. (d) Includes previously occupied houses. (e) Usually based on the purchase price. (f) Usually based on the cost of the land and the contract price of the dwelling. (g) Usually based on the cost of the land and the assessed value of the dwelling.

**HOME SAVINGS GRANT APPLICATIONS APPROVED: METHOD OF FINANCING HOMES
AND AVERAGE MORTGAGE LOANS, 1972-73**

State or Territory	Method of financing homes				Total	Average first mortgage loan(b)	Average second mortgage loan
	With first mortgage loan and without second mortgage loan	With first and second mortgage loans	Others(a)				
	number	number	number	number	\$	\$	
New South Wales	8,433	1,039	263	9,735	10,970	2,729	
Victoria	12,889	1,527	893	15,309	10,302	2,531	
Queensland	6,010	347	267	6,624	9,527	2,561	
South Australia(c)	3,264	1,246	161	4,671	9,697	2,463	
Western Australia	2,367	223	138	2,728	11,152	2,570	
Tasmania	1,295	70	86	1,451	9,464	2,450	
Australian Capital Territory(d)	88	239	2	329	9,781	5,620	
Australia	34,346	4,691	1,810	40,847	10,291	2,717	

(a) Homes financed without mortgage loan. Includes homes financed from the applicants' own resources only, with personal or unsecured loans, purchased under a terms contract of sale, etc. (b) Includes homes financed with and without second mortgage loans. (c) Includes Northern Territory. (d) Includes Queanbeyan, N.S.W.

Housing loans insurance scheme

The Housing Loans Insurance Corporation was established by the *Housing Loans Insurance Act* 1965-73 to insure approved lenders against losses arising from the making of housing loans. The main purpose of the activities of the Corporation is to assist people to borrow, as a single loan, the money they need and can afford to repay to obtain a home suited to their requirements.

The Corporation will insure loans of up to \$40,000. The maximum loan to valuation ratio is 95 per cent for loans for the purchase or construction of homes. A once-and-for-all premium of 1.4 per cent of the amount of the loan is charged by the Corporation for the insurance of loans representing 94 per cent or more of valuation. The premium rate falls progressively to a minimum of 0.25 per cent on loans of less than 76 per cent of valuation. The premium normally is paid by the borrower, but lenders may agree to add it to the amount of the loan for repayment by the borrower over the duration of the loan. The maximum period for repayment of a loan on the purchase or construction of a home is forty years.

The Corporation insures loans for purposes other than the purchase or construction of a dwelling. These include alterations, extensions or improvements to a dwelling. An insured loan may be made only by an approved lender. Approved lenders are appointed by the Corporation from within approved classes of lenders specified by the Minister for Housing and Construction. The approved classes include banks, permanent and terminating building societies and most other sources of housing finance. The Corporation commenced its operations in November 1965. By the end of December 1973, 148,129 loans to a value of \$1,705.8 million had been insured.

State housing authorities

The following paragraphs describe briefly the organisation of the various State housing authorities and their activities in the fields of home construction and provision of homes on a rental basis (*see* pages 236-39 for their financial advances to persons wishing to purchase or build a home). For summarised figures of total government construction of houses and flats, *see* pages 216, and 219. For a fuller description of the activities of State housing authorities and their financial advances to home purchasers or builders *see* Year Book No. 53, pages 283-91.

New South Wales—The Housing Commission of New South Wales. The Housing Commission of New South Wales was constituted in 1942, its principal function being the provision of low-cost housing to persons in the lower or moderate income groups.

Advances from the Australian Government have provided most of the Housing Commission's capital funds and by 30 June 1973 had aggregated \$582,248,000 of which \$74,431,000 had been repaid. Other net funds of the Commission at 30 June 1973 comprised repayable advances from the State, \$99,916,000; public loans raised by the Commission, \$2,289,000; grants from the Australian Government, \$8,204,000; grants from the State, \$21,223,000 (including \$9,115,000 from consolidated revenue and \$12,000,000 from taxes on poker machines); provision for maintenance of properties, \$5,632,000; and accumulated surplus, \$53,641,000. In addition, the Commission owed \$13,900,000 to creditors, mainly for purchase, of land and work-in-progress. These funds were represented by fixed assets, \$690,344,000 (including \$221,149,000 debtors for purchase of homes) and current assets, \$22,278,000. In 1972-73, the Commission's income was \$54,921,000 (including rent \$36,726,000 and interest \$13,184,000), expenditure \$50,843,000 (interest, \$24,784,000), and capital expenditure \$49,007,000.

Most of the permanent dwellings provided by the Commission have been erected under the Federal-State Housing Agreements. In 1972-73, 3,470 houses and flats, valued at \$31,293,000, were completed for the Housing Commission by private builders on contract to the Commission.

Upon request by other State Departments the Housing Commission will erect houses for employees of those Departments, the Departments providing the necessary lands and funds. In addition, the Commission erects (with State funds) dwellings for employees of industries connected with decentralisation and development. Specially designed units are erected by the Housing Commission to provide dwellings for elderly persons at rentals within their means. The rents of these units, as at 30 June 1973, are approximately \$4.20 a week for elderly single persons and \$6.50 a week for elderly couples, and 7,090 units had been completed at 30 June 1973.

Victoria—Housing Commission, Victoria. The Housing Commission, Victoria, was set up in 1938 as a result of the Housing Act of the previous year. The objects of the Commission as now laid down are the improvement of existing housing conditions; the provision of suitable rental housing for persons displaced by slum reclamation or living under unsatisfactory conditions, and for other eligible persons; the sale of houses to eligible persons and the making of advances to such persons to enable them to own their homes; the development of land for housing and related purposes; and the preparation and implementation of Urban Renewal Proposals. Since the signing of the 1945 Housing Agreement the construction of dwellings has been financed by the Australian Government and Commission Funds.

At 30 June 1973, the Housing Commission had completed 1,328 dwelling units under the State Housing Scheme and 73,079 dwelling units under Federal-State Agreements, Works and Services

Loans, Service Personnel Agreements (Housing) and Grants for Aged Person Housing. Specially designed dwelling units are erected by the Commission to provide dwellings for elderly persons at rentals within their means. To 30 June 1973, 5,666 such units had been completed. These are also included in the figures for total constructions above.

Queensland—The Queensland Housing Commission. The Queensland Housing Commission was established in 1945 to assist in meeting the housing shortage. In addition, the Commission was empowered to build houses itself, either for sale or for rental.

The Housing Commission finances its operations through two Treasury Trust Funds—the Queensland Housing Commission Fund and the Commonwealth-State Housing Fund. In addition, a Home Builders' Deposit Trust Fund is available to assist eligible persons to accumulate money to acquire land and erect a Commission dwelling thereon, or to purchase a dwelling under contract of sale conditions. Total disbursements by the Commission for the year 1972–73 amounted to \$42,970,636, representing \$9,761,955 from the Queensland Housing Commission Fund and \$33,208,681 from the Commonwealth-State Housing Fund.

During 1972–73 the Commission completed 1,779 house units, bringing the total completions under all schemes since the revival of housing construction in 1944–45 to 45,245. Of this number 26,614 houses, or 58.8 per cent, were for home ownership, and 18,631 or 41.2 per cent, were for rental.

In the field of rental housing the Commission administers and acts as the constructing authority under the Federal-State Housing Agreements and the *States Grants (Aged Pensioners Housing) Act* 1969 and *States Grants (Housing) Act* 1971–1973. Operating under the provisions of the *State Housing Act* 1945–1972, the Commission, through its scheme of workers' dwellings, makes advances for the construction of dwellings to eligible persons who own a suitable building site. The number of workers' dwellings completed during 1972–73 amounted to 99, making a total of 31,242 completions since the inception of the scheme. The Commission also has power to make advances, secured by mortgage, to firms for housing of employees. The Commission has power to sell houses under contract of sale conditions. Contract of sale agreements were made to purchase 1,142 of the Commission's houses during 1972–73.

South Australia—The South Australian Housing Trust. The South Australian Housing Trust operates under the South Australian Housing Trust Act, 1936–1971 and the Housing Improvements Act, 1940–1971 for the purpose of providing houses for families of limited means. Houses are built for both rental and sale, and to 30 June 1973, 74,125 had been completed throughout the State, of which some 38,938 had been built and sold under various schemes. At 30 June 1973 the rents of five-roomed (i.e. three bedrooms) double-unit houses ranged from \$10.00 a week for houses of an older type to \$12.50 a week for houses then being completed. Single units rent ranged between \$14.00 and \$18.50. Two- and three-storey groups of flats with weekly rentals ranging from \$9.00 to \$17.75 per flat have been built in the Metropolitan Area; of these 1,373 flats are situated in the Metropolitan Area and 328 at Elizabeth. In 1953 the Trust began building cottage or pensioner flats for elderly people. At 30 June 1973 it had built 1,492 cottage flats from its own resources and an additional 807 for charitable and non-profit organisations.

During 1962–63 the Trust commenced construction of rental-purchase houses. The aim of this scheme is to provide less expensive houses for the lower income groups. It is expected that such houses will, to some extent, replace double-unit type rental houses. The Trust has also undertaken the construction of houses for various State Government Departments which need to house staff in country districts. In order to assist primary producers the Trust will erect houses on the applicant's own land for his own use or that of his employees, either using local materials or transporting pre-fabricated houses to the site.

The Trust has now become the operator for Aboriginal housing in South Australia apart from housing on Aboriginal reserves, or where Aboriginal Building Societies are established. Previously, the houses were administered by the Department for Community Welfare. Although the houses are still owned by the Minister of Community Welfare, their administration is now controlled by a Committee called the Aboriginal Housing Committee. This Committee will shortly have a predominantly Aboriginal membership as well as an Aboriginal Chairman. The Trust provides all the usual Housing Management services for the houses, but policy decisions, including the location of houses and types of houses to be purchased or built, are the responsibility of the Committee. The Trust purchases or builds the houses with funds provided by the Australian Government in the form of grants. The houses are called Aboriginal 'funded' houses, and at the end of June 1973 a total of 280 had been built or purchased in South Australia. The Trust still continues to build houses on Aboriginal reserves for the Department for Community Welfare which administers these houses.

Western Australia—State Housing Commission of Western Australia. The activities of the State Housing Commission extend throughout the whole State. In addition to construction of a variety of dwellings for its own rental and purchase program as determined under the State Housing Act, the Federal State Housing Agreements prior to 30 June 1971 and subsequently the *States Grants (Housing) Act 1971–1973*, its activities include:

- Construction of houses for other Government Departments (both Australian and State Government, and semi- and local government authorities) in Western Australia;
- Construction and maintenance of houses for the Government Employees' Housing Authority.

At 30 June 1973, the Commission had completed under all schemes since 30 June 1944, a total of 58,622 units of accommodation throughout the State.

During the twelve months ended 30 June 1973, 2,207 units of accommodation were completed: metropolitan area, 1,796; country, 159; and north of 26th parallel, 252; and a further 1,620 units were under construction.

Building Societies are a major source of housing finance in Western Australia. At 30 June 1973, it was estimated that the assets of all societies were about \$524 million. Currently, 11 permanent and 416 terminating societies are operating. As a condition of eligibility for assistance under the *Housing Agreement Act 1973*, the State is required to allocate not less than 20 per cent nor more than 30 per cent of its housing authority new borrowings for advances through terminating building societies.

Under the *Housing Loans Guarantee Act 1957–1972*, the guarantees provided to financial institutions enable loans to be made to lending institutions with full security. The Act enables building societies and other approved bodies to make high ratio advances to families of low and moderate means without additional charge. The interest rate charged to the borrower may not exceed 8.5 per cent reducible. Loans may be made up to 95 per cent of the value of the house and land or a specified sum, whichever is the lesser amount. In respect of the metropolitan region, the maximum loan permitted is \$14,000 and outside the metropolitan region south of the 26th parallel, \$15,000. For a new house situated north of the 26th parallel and in the North West or Eastern Land Divisions, the maximum loan is \$19,000 and in the Kimberley Land Division \$22,500.

Tasmania—The Housing Department. The Housing Department was established in 1953 and is responsible for administering that portion of the *Homes Act 1935* which relates to the acquisition and development of land for housing purposes and the erection of homes for rental and sale by purchase contract, and the *Casual Worker's and Unemployed Persons' Homes Act 1936*.

During 1972–73, 642 dwellings were completed. Construction since 1944 has totalled 13,854 dwelling units, comprising 13,017 detached and semi-detached units (9,761 of timber), 519 elderly persons' flatettes, 22 maisonettes, and 296 multi-unit flats.

Flats, maisonettes, villa units, and elderly persons' homes are for rental only. Single unit dwellings may be allotted on either a purchase contract or rental basis. The weekly rental of a newly erected three-bedroom brick veneer house in the Hobart metropolitan area approximated \$20.55 in the June quarter of 1973. In certain necessitous cases rental rebates are allowed. Under the current rental rebate formula, a married couple occupying an elderly persons' unit and whose only income is the age pension, pay \$3.80, while a single person solely dependent on the pension pays \$2 a week.

Most purchase contract allotments are made on a no-deposit basis with repayments over a maximum period of fifty-three years. Purchase contracts are sometimes surrendered to the Department. Net of surrenders, 9,339 purchase contracts had been entered into by June 1973. The sale price, excluding land, of a new three-bedroom house in the Hobart metropolitan area was approximately \$12,000 in June of 1973.

Housing schemes in Australian Territories

Northern Territory. In 1946 control of all government-owned residences in the Territory (excluding those belonging to the Defence Services or Commonwealth Railways, or attached to post offices) was vested in the Administration. The Northern Territory Housing Commission was established in 1959 and operates under authority of the *Housing Ordinance 1959–1971*. The Commission became autonomous on 1 October 1969 and provides rental housing for persons of limited means who are not adequately housed and who are not officers of either the Australian or the Northern Territory Public Service. To 30 June 1973 the Commission had completed a total of 3,553 houses and flats; 2,453 of these are in Darwin (including 490 flats), 691 in Alice Springs (including 191 flats); 182 in Katherine (including 29 flats); 206 in Tennant Creek (including 15 flats); 9 houses in Pine Creek; 8 houses in Adelaide River and 2 each in Elliot and Mataranka. In addition, 49 houses and 8 flats were taken over from the Department of Defence in Alice Springs; 2 houses in Katherine and 1 house in Tennant Creek were acquired from the Department of the Northern Territory; and 1 house in Darwin was purchased privately. A further 1 house and 10 flats were under construction.

Australian Capital Territory. The Australian Government provides houses and flats for rental to persons on low incomes who are employed in the Australian Capital Territory. At 30 June 1973 the Department of the Capital Territory controlled 7,677 houses and 2,126 flats for rental purposes. Government rental houses may be purchased by eligible tenants.

Summary of rental activities of government authorities

The first of the following two tables shows the revenue from rental for dwellings under control of government housing authorities each year from 1968-69 to 1972-73, and the second, the number of tenants paying rent for dwellings under control of government housing authorities at the end of each year 1968-69 to 1972-73.

GOVERNMENT HOUSING AUTHORITIES: REVENUE FROM RENTALS (\$'000)

Year	N.S.W.	Vic.	Qld(a)	S.A.(b)	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968-69	24,661	17,207	7,486	12,506	8,003	1,902	1,261	4,137	77,163
1969-70	27,048	18,062	8,403	13,493	8,120	2,008	1,703	4,459	83,296
1970-71	29,851	20,618	9,286	14,300	10,076	2,152	(c)3,387	5,300	94,970
1971-72	32,813	22,274	10,405	15,700	11,378	2,315	3,366	5,744	103,995
1972-73	36,726	22,778	11,407	17,150	12,209	2,578	4,335	5,598	112,781

(a) Excludes rentals in respect of tenanted temporary dwellings. (b) Excludes rentals in respect of temporary and emergency dwellings. (c) Includes undercharges in respect of 1969-70.

GOVERNMENT HOUSING AUTHORITIES: NUMBER OF TENANTS PAYING RENT

Year	N.S.W.	Vic.	Qld(a)	S.A.(b)	W.A.	Tas.(c)	N.T.	A.C.T.(c)	Aust.
1968-69	60,293	36,403	15,693	31,322	18,340	3,644	2,939	9,904	178,538
1969-70	62,293	37,591	16,202	31,993	19,226	3,741	3,400	10,311	184,757
1970-71	63,983	38,237	17,038	33,378	22,056	3,951	3,710	10,567	192,920
1971-72	66,740	39,694	17,670	34,382	23,236	4,158	4,261	10,048	200,189
1972-73	69,178	40,335	18,463	35,155	24,055	4,560	4,826	9,651	206,223

(a) Excludes tenanted temporary dwellings. (b) Excludes temporary and emergency dwellings. (c) Number of occupied dwellings at 30 June.

Advances to home Purchasers

Many prospective home purchasers wish to borrow for the purpose of constructing or purchasing their own homes. Usually the loan is covered by way of mortgage of the home to be constructed or bought. Such loans are provided from a number of private sources and from agencies owned or guaranteed by the Australian or State Governments. The information in this section concerns the direct loans made to home purchasers by the more important institutional lenders. Loans to institutions which in turn lend moneys to home purchasers and loans to contract builders, etc. are excluded as far as possible. The loans may be for the construction of new dwellings, the purchase of existing dwellings, for additions, renovations, etc., as first or subsequent mortgages, overdrafts and so on. While figures of all loans to home purchasers are not available, the institutions mentioned account for a significant proportion of total loans. Details of the terms and conditions of lending are given, together with available information on the number and value of loans made.

State and Territory authorities and agencies

New South Wales

Rural Bank of New South Wales—Sale of Homes Agency. A Sale of Homes Agency was established in 1954 to arrange for the sale on terms of houses erected by the Housing Commission of New South Wales. The Agency's operations began with the sale to selected purchasers of 100 houses made available by the Commission during 1954-55 and 1955-56. The sales were made on the basis of 10 per cent deposit and repayment of the balance over a maximum period of forty years, with interest at 4.5 per cent per annum. Total advances under that scheme amounted to \$646,648; at 30 June 1973 the advances outstanding amounted to \$243,790 in respect of 58 houses.

Since 1956 the Sale of Homes Agency has acted as the agent of the Housing Commission in arranging the sale on terms of houses erected under the Federal-State Housing Agreements. The terms of sale provide for a minimum deposit of \$200 and repayment of the balance over a maximum period of forty-five years, with interest rates, since the inception of the scheme, ranging from 4.25 to 6.75 per cent per annum. Particulars of the advances made by the Agency in connection with the sale of houses erected under the 1956, 1961 and 1966 Agreements and the *States Grants (Housing) Act* of 1971-1973 are given in the following table.

RURAL BANK OF NEW SOUTH WALES—SALE OF HOMES AGENCY ADVANCES FOR HOMES SOLD UNDER THE 1956, 1961 AND 1966 FEDERAL-STATE HOUSING AGREEMENTS AND THE STATES GRANTS (HOUSING) ACT OF 1971-1973

Year	Advances during year		Total advances to end of year		Advances outstanding at end of year(a)	
	Number of houses	Amount	Number of houses	Amount	Number of houses	Amount
		\$'000		\$'000		\$'000
1968-69 . . .	1,227	11,167	22,036	161,141	19,406	133,363
1969-70 . . .	1,751	17,074	23,787	178,215	20,523	144,511
1970-71 . . .	2,080	22,144	25,867	200,359	21,953	160,426
1971-72 . . .	1,978	24,827	27,845	225,186	23,130	177,309
1972-73 . . .	974	13,970	28,819	239,156	22,942	180,438

(a) Comprises principal outstanding and loan charges due but not paid.

The Sale of Homes Agency also acts as agent for the Housing Commission in arranging the sale of houses erected by the Commission on applicants' land. Under this scheme persons who have established a housing need may apply to the Commission to have a standard-type dwelling erected on their own land. The houses are sold, at a price equivalent to their capital cost, on the same terms as for houses erected under the 1956 to 1966 Housing Agreements and the *States Grants (Housing) Act* of 1971-1973. Up to 30 June 1973, 712 houses had been built at a cost of \$5,761,000, the balance of indebtedness at that date was \$4,668,000.

Rural Bank of New South Wales—Other loans. The Rural Bank of New South Wales provides assistance to individuals for the erection of purchase of homes and for other approved purposes associated with homes. Advances are based on the bank's official valuation of the dwelling. The current rate of interest on long-term loans for housing purposes is 6.75 per cent per annum.

Victoria

Housing Commission of Victoria. Very few houses were sold by the Commission until 1954 but the added emphasis given to the construction of houses for private ownership by the amendments in the Federal State Housing Agreement in 1955-56 had the effect of substantially increasing the number of houses sold.

Of the 74,407 dwelling units built up to 30 June 1973, under the State Housing Scheme, the Federal State Agreements and Housing Grant, a total of 34,492 houses have been sold (18,217 in the metropolitan area and 16,275 in the country).

Home Finance Trust. In 1956 a Home Finance Trust was established with the object of receiving money from institutions and others in order to make loans for the erection or purchase of houses. Applicants for loans must declare that they intend to use the houses as homes for themselves, their families and dependants.

Loans granted are on the basis of a first mortgage over the house. Loans are not to exceed ninety-five per cent of the value of the security (house and land) and are not made if the value of the security exceeds \$16,500. The house must not have been erected more than two years before the date of mortgage. Repayment of loans may be made over a maximum period of thirty years, with interest charges determined by the Trust. At 30 June 1973, 3,565 loans totalling \$25,865,699 were outstanding.

In 1963 the Trust was empowered to make housing loans on the security of second mortgages subject to conditions similar to those applying to the first mortgage loans, except that the maximum term for repayment of a loan is ten years and no restriction is placed on the percentage of loan to valuation. At 30 June 1973, 1,350 second mortgage loans were outstanding, the amount involved being \$2,030,040.

(See Savings Banks, page 240, for activities of the State Savings Bank of Victoria.)

Queensland

Queensland Housing Commission. The present maximum advance allowable under the Act is \$12,000 for a timber, brick veneer, brick, or concrete building. The rate of interest charged on new advances was increased from 5.5 per cent to 6.125 per cent per annum from 3 November 1969, and was further increased to 7.125 per cent per annum from 30 July 1970. The rate charged on new advances was reduced to 5.5 per cent per annum from 1 October 1971. Repayments may be made at the option of the borrower over either a thirty year or a forty-five year period.

Workers' dwellings. From 4 October 1962 the maximum advance under this scheme was increased to \$7,000 for all types of workers' dwellings. This was increased to \$8,000 from 2 June 1966, to \$9,000 from 22 May 1969, to \$10,000 from 23 September 1971 to \$10,500 from 1 July 1972, and \$12,000 from 8 March 1973. Total advances made for dwellings since operations commenced in 1910 to 30 June 1973 amounted to \$75,013,734.

South Australia

South Australian Housing Trust Sales Schemes. Prospective purchasers of Housing Trust houses (other than Rental Purchase houses) may purchase either by paying cash or by paying a deposit and arranging for a loan on security of a first mortgage from any of the recognised lending authorities. In cases where the deposit and the first mortgage so raised are insufficient, the Trust may advance the balance of the house price on security of a second mortgage, the term of which is usually coterminous, but not exceeding 30 years. The interest rate is 7.5 per cent and the interest is adjusted quarterly. During 1972-73 the Trust commenced 404 second mortgages valued at \$606,000. At 30 June 1973 second mortgages totalled 7,900 and the balance outstanding at that date was \$8,300,000. A minimum deposit of \$100 is required for houses built under the Rental Purchase Scheme. The balance of the purchase price is repayable to the Trust in weekly instalments over periods up to 40 years at 5.5 per cent interest per annum.

State Bank of South Australia. The State Bank, together with the Housing Trust, are the principal agents of the State Government for the distribution of moneys received under housing assistance arrangements with the Australian Government. During 1972-73 the Bank opened 2,320 new accounts worth \$20,717,251 in the Home Builders' Account. The balance of loans outstanding on this account at 30 June 1973, totalled \$126,870,758. The Bank administers the Advances for Homes Act, 1928-1970 on behalf of the State Government. However, advances under this Act have virtually ceased and the only funds being made available are for repairs to tenancy houses and for extra bedroom accommodation. The balance outstanding under this Act at 30 June 1973 was \$16,892,537. The present maximum housing loan is \$12,500, repayable over a period not exceeding fifty years at a rate of interest of 6.5 per cent per annum calculated on monthly balances.

(See Savings Banks, page 240 for activities of the Savings Bank of South Australia.)

Western Australia

State Housing Commission of Western Australia. Under the State Housing Act (and the Federal State Housing Agreement up to 30 June 1971) the maximum loan is \$8,000 by way of mortgage, while under contract of sale the maximum is \$6,500 on the building plus the value of the land in the metropolitan area, and greater amounts in rural areas, depending on the circumstances.

To proceed under the mortgage conditions, a deposit of not less than 10 per cent is required, but under contract of sale the deposit may be as low as \$200. The interest rate on all advances is 5.375 per cent per annum and the repayment period is forty-five years. The income eligibility figure varies according to the movement of the basic wage, and currently an applicant in the Metropolitan Area cannot have an income exceeding \$5,675 a year, plus \$100 for each dependent child under twenty-one years of age. The remainder of the State is divided into 5 zones and the income eligibility varies from \$5,714 to \$6,221 plus \$100 for each dependent child under twenty-one years of age. A second mortgage scheme exists under the State Housing Act, which provides that assistance be limited to those applicants who are building or purchasing new homes, the cost of which, excluding land, does not exceed \$10,000. The Commission limits the second mortgage to a maximum of \$2,000.

(See Savings Banks, page 240, for activities of the Savings Bank Division of the Rural and Industries Bank of Western Australia.)

Tasmania

Housing Department. The interest rate on purchase contract loans as at 1 July 1973, was 5 per cent. The number of loans outstanding at 30 June 1973, was 8,111, and the amount outstanding \$61,422,128

Agricultural Bank of Tasmania. The Agricultural Bank, as an approved lending authority under the Federal-State Housing Agreement 1973, receives part of those funds allocated for loans to prospective home owners. To be eligible for a loan, an applicant, whose income is subject to a needs test, must be married, about to be married or have dependants for whom it is necessary to provide a home. Loans up to a maximum of \$12,000, or ninety per cent of the Bank's valuation of land and dwelling, whichever is the lesser, will be considered on acceptable proposals throughout Tasmania. Such loans, currently bearing interest at 5.5 per cent are repayable by equated monthly instalments over periods up to thirty years. Other limited funds, not subject to a needs test, are currently available at 6 per cent.

During 1972-73, 317 loans totalling \$3,018,000 were approved. Since November, 1945, a total of 5,217 loans amounting to \$35,676,000 has been approved of which 3,712 have been for the erection of dwellings, and 1,505 for the purchase of existing homes. Total loans outstanding at 30 June 1973 amounted to \$23,219,000. The figures exclude advances to co-operative housing societies.

Northern Territory

Loans Scheme. This scheme was commenced in 1953 and is administered by the Home Finance Trustee under the *Housing Loans Ordinance 1949-1967*. Advances may be made for the erection of a house, the purchase or enlargement of an existing house, the completion of a partially erected dwelling, or the discharge of a mortgage already existing. Loans are provided on a deposit of 5 per cent of the first \$4,000 and 10 per cent of the balance of the Trustee's valuation up to a maximum of \$12,000. The rate of interest charged is 8.25 per cent per annum reducible to 7.25 per cent per annum if instalment payments are made by the due date. The maximum period of repayment is forty-five years for brick houses and twenty-five years for other houses. Up to 30 June 1973, 1,456 loans totalling \$8,601,250 had been approved. These were for: erection, 811; purchase, 463; enlargement or completion, 114; discharge of mortgage, 68.

Sales Scheme. Tenants of government-owned houses under the control of the Department of the Northern Territory may purchase the dwellings they occupy either for cash or on terms requiring a minimum deposit of 5 per cent of the purchase price with repayments over a maximum period of forty-five years including interest at 6.25 per cent per annum.

Housing Commission Sales Scheme. Since the November 1963 amendment of the *Housing Ordinance 1959-1971* the Housing Commission has been permitted to sell its houses to tenants in occupation. The terms require a minimum cash deposit of \$200 and repayment of the remainder of the loan over a period not exceeding forty-five years; there is no prescribed limit to the amount of the loan and the rate of interest is fixed by the Commission from time to time.

Australian Capital Territory

Loans may be granted by the Commissioner for Housing to enable persons to purchase or build a new house in the Australian Capital Territory. Where the Commissioner's valuation does not exceed \$4,000 the maximum loan may not exceed ninety-five per cent of the valuation. If the Commissioner's valuation exceeds \$4,000, the maximum loan is ninety-five per cent of the first \$4,000 and ninety per cent of the balance (but in no case can the amount lent exceed \$12,000). Repayment may be made over a maximum period of thirty-two years. The current rate of interest is 7.25 per cent per annum with a concession of 1 per cent for payments made on or before the due date. At 30 June 1973, 9,515 houses were under mortgage to the Commissioner.

Government rental houses may be purchased by persons who were tenants prior to 7 July 1972. The basis of the sale is a minimum deposit of 5 per cent of the purchase price fixed by the Department of the Capital Territory with no limit to the amount which may be held on mortgage from the Department. Repayment of the amount covered by mortgage may be made over a maximum period of forty-five years. In addition, persons who were registered on the housing waiting list before 7 July 1972 can use facilities similar to the Commissioner for Housing loans scheme, except that the term is forty-five years. The interest rate is 7.25 per cent per annum with a concession of 1 per cent for payment made on or before the due date. To 30 June 1973, 11,073 houses had been sold to tenants.

Savings banks

All savings banks lend funds for housing to both individuals and building societies. Details of savings banks housing finance transactions during the years 1969-70, 1970-71, 1971-72 and 1972-73 are shown in the following table. (See the chapter Private Finance for further details.)

SAVINGS BANKS: HOUSING LOANS APPROVED AND BALANCES OUTSTANDING TO INDIVIDUALS
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.(a)	W.A.	Tas.	A.C.T.	Total
LOANS APPROVED DURING YEAR								
1969-70	140,535	190,079	52,612	46,164	27,200	9,188	3,404	469,181
1970-71	180,112	200,372	65,486	54,168	47,283	14,085	5,701	567,207
1971-72	209,365	229,581	81,192	75,768	48,198	18,298	8,090	670,492
1972-73	332,826	389,262	142,221	120,878	76,418	26,630	16,017	1,104,251
BALANCES OUTSTANDING AT END OF YEAR								
1969-70	524,010	748,483	196,498	254,401	120,144	45,487	9,258	1,898,281
1970-71	588,020	826,435	226,709	275,201	145,274	50,879	12,389	2,124,907
1971-72	663,869	915,839	260,540	307,357	166,540	59,782	18,115	2,392,042
1972-73	787,277	1,056,771	320,361	360,280	203,418	70,825	26,344	2,825,276

(a) Includes Northern Territory.

State Savings Bank of Victoria. The Bank grants long-term loans to depositors to enable them to build, purchase or improve homes. These loans are granted by both the Credit Foncier and Savings Bank Departments.

The maximum proportion of valuation to be granted as Credit Foncier loan is eighty per cent and the maximum loan is \$8,000. Interest is 7.25 per cent and the term of the loan is ten years, subject to renewal. The maximum proportion of valuation granted as Savings Bank Department loan is eighty per cent with no limit on the maximum loan. For a property to be occupied by the borrower the interest rate is at least 7.75 per cent, depending on the amount of the loan. The above conditions are those current as at 21 September 1973 but are subject to review and alteration by the Bank at any time. During the year 1972-73 the Bank advanced \$114,896,540 to 11,616 borrowers. At 30 June 1973 the total debt of 81,202 individual borrowers was \$521,220,900, while indebtedness of Co-operative Housing Societies and the Home Finance Trust amounted to \$7,508,961 and \$9,335,302 respectively.

Savings Bank of South Australia. The bank grants mortgage loans for the building or purchase for personal occupation, of existing houses, houses not previously occupied and those to be erected. Normally advances are made up to 85 per cent of the Bank's valuation or 95 per cent where the borrower elects to insure the loan with the Housing Loan Insurance Corporation and pay the necessary premium which may be added to the loan if so desired. The maximum loan period is thirty years and the rate of interest on loans of up to \$12,500 is 7.25 per cent per annum; this rate is subject to review at any time. Loans above \$12,500 are available at slightly higher interest rates.

During 1972-73 the Bank advanced \$28,153,841 by way of housing loans, the number of new loans totalling \$2,979. At 30 June 1973 there were 27,656 housing loans current with a balance outstanding of \$158,684,664.

The Rural and Industries Bank of Western Australia (Savings Bank Division). The Rural and Industries Bank of Western Australia is authorised by the *Rural and Industries Bank Act, 1944-1966* to make loans from moneys on deposit with its Savings Bank Division to a person or body for the purchase or erection of a dwelling. It is the policy of the Bank to provide funds for housing primarily for occupancy by the borrower. There is no fixed limit on the amount of a loan. At 30 June 1973 the basic rate for housing loans, whether for new homes or existing dwellings, was 6.5 per cent per annum reducible. Higher rates, usually in the range of 7 per cent to 8 per cent per annum reducible, may be charged for loans for substantial amounts, high loan-to-value ratio loans, and other loan where special circumstances exist. Loans may be approved up to terms of thirty years but the averages term of housing loans is eighteen to twenty years.

The bank undertakes the sub-division and development of land and the erection of homes which are sold under conditions which ensure that the purchasers are genuine home seekers. This activity commenced in May 1967. The number of homes built to 30 June 1973 was 439, whilst another 33 were under construction. In addition, 390 building lots (under certain restrictions) were made available to project builders for the erection and sale of houses. A further 1,081 building lots have been auctioned to the public under restrictions designed to favour genuine home seekers.

Trading banks

Apart from loans by certain State banks as Government agencies (*see* pages 236-9) advances for housing to individuals are also provided by the trading banks. Amounts outstanding in respect of advances to individuals for housing purposes made by the major trading banks were \$475 million on the second Wednesday of July 1973 (*see* the chapter Private Finance for further details).

Life insurance companies

The life insurance companies are another source of funds for housing. Details of new loans paid over during the twelve months ended June 1969 to 1973 and amounts outstanding at end of June 1969 to 1973, are given in the following table.

**LIFE INSURANCE COMPANIES: HOUSING LOANS PAID OVER AND
AMOUNTS OUTSTANDING**
(\$'000)

	(a)1968-69	1969-70	1970-71	1971-72	1972-73
Housing loans paid over during period—					
New South Wales	29,130	33,151	29,686	30,419	29,348
Victoria	22,549	23,791	21,145	20,004	20,859
Queensland	(b)6,098	6,135	6,921	7,159	6,521
South Australia	(c)5,366	5,415	6,033	5,908	6,216
Western Australia	6,446	5,283	5,335	5,086	4,747
Tasmania	1,530	1,588	1,728	1,751	1,456
Northern Territory	(c)	132	40	133	92
Australian Capital Territory	666	874	991	1,459	2,372
Total	(b)71,784	76,369	71,879	71,918	71,607
Amounts outstanding on housing loans at end of period(b)	397,958	422,284	442,567	454,476	447,958

(a) Excludes the business of the State Government Insurance Office of New South Wales and the Queensland State Government Insurance Office. (b) Includes Papua New Guinea. (c) Loans made in Northern Territory included in South Australia.

Registered building societies

There were 5,627 registered building societies operating in Australia during the year ending 30 June 1972 of which 193 are permanent societies and the remainder terminating societies. The permanent societies are, in the main, investment societies which make loans for housing purposes, usually on credit foncier terms, and obtain their funds from share capital, deposits and borrowings from banks and other lending institutions. The terminating societies make loans to members from funds obtained from lending institutions (usually government guaranteed), members' subscriptions and, since 1956, from moneys provided under the Federal-State Housing Agreements. Details of new loans paid over and net advances outstanding for each of the years ended June 1968 to 1972 are given in the following table (*see also* the chapter Private Finance).

HOUSING AND BUILDING
REGISTERED BUILDING SOCIETIES
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
LOANS PAID OVER DURING YEAR							
1967-68 . . .	142,084	49,456	29,369	5,121	24,436	9,545	260,011
1968-69 . . .	176,282	53,059	38,044	7,901	48,650	7,914	331,850
1969-70 . . .	225,151	54,212	49,276	12,135	91,481	12,008	444,263
1970-71 . . .	232,138	61,229	54,428	12,951	84,150	8,142	453,038
1971-72 . . .	309,014	107,627	102,071	14,053	107,007	10,831	650,603
NET ADVANCES OUTSTANDING(a) AT END OF YEAR							
1967-68 . . .	593,438	259,574	103,194	22,388	77,254	32,204	1,088,052
1968-69 . . .	715,029	284,894	127,830	27,529	113,812	35,542	1,304,636
1969-70 . . .	861,985	309,186	162,363	36,466	189,482	42,603	1,602,085
1970-71 . . .	995,647	338,445	194,708	45,439	253,389	44,930	1,872,558
1971-72 . . .	1,188,587	408,360	269,939	54,134	331,636	49,473	2,302,129

(a) Net of borrowing members' funds.

Other lenders

At this time there is little statistical information available on advances made by other lenders such as superannuation and other trust funds, private finance and investment companies, etc. In South Australia advances on first mortgage made by the South Australian Superannuation Fund are granted on a credit foncier basis. Loans are limited to 70 per cent of value unless repayments are insured with an approved insurer, in which case loans of up to 90 per cent of value are made. The interest rate may be varied from time to time, the present minimum rate being 8.75 per cent per annum. The maximum term is 30 years for homes of solid construction, and 20 years for timber-framed homes. At 30 June 1973 there were 4,859 loans current, the principal outstanding totalling \$26,020,954. During 1972-73 the value of advances made was \$4,199,500.

CHAPTER 10

LABOUR, WAGES AND PRICES

For particulars of the Farm Production Price Index, see the chapter Miscellaneous. For current information on the subjects dealt with in this chapter, see the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5) (monthly), and the *Quarterly Summary of Australian Statistics* (1.3), also the mimeographed statements *Wage Rates and Earnings* (6.16), *Consumer Price Index* (9.1), *Consumer Price Index Monthly Food Group Index Numbers* (9.11), *Price Index of Materials used in Building other than House Building* (9.6), *Price Index of Materials used in House Building* (9.9), *Price Index of Electrical Installation Materials* (9.5), *Price Indexes of Metallic Materials* (9.10), and *Export Price Index* (9.2). For further information on these subjects, except the Export Price Index, see the *Labour Report* (6.7) issued by this Bureau.

RETAIL PRICES AND PRICE INDEXES

Retail prices of food and groceries and average rentals of houses for years extending back to 1901 have been collected by the Commonwealth Statistician, and in some cases were recorded by the Statisticians of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923 and comparable information was ascertained for the month of November in each year from 1914 to 1922. The range of items for which retail prices data are obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in current periods are published in the annual *Labour Report*.

An explanation of the nature and purposes of retail price indexes is given in the various editions of the annual *Labour Report*, together with further particulars of indexes then current. Previous retail price indexes for Australia are briefly described below. The current retail price index, entitled the Consumer Price Index, was published for the first time in August 1960. It was compiled retrospectively to 1948-49. A description of the Consumer Price Index is given on pages 244-6.

Previous retail price indexes

Five series of retail price indexes had been compiled at various times for Australia by the Commonwealth Statistician prior to 1960. Each of these was continued until changed conditions required the compilation of indexes more directly relevant to current conditions. The respective indexes were as follows.

- (i) *The 'A' Series Index* (covering food, groceries and house rents) was first compiled in 1912 with the year 1911 as base = 1,000. It was discontinued in June 1938.
- (ii) *The 'B' Series Index* (covering food, groceries and rent of 4 and 5 roomed houses) was first compiled in 1925 and continued until December quarter 1953. It was the food and rent constituent of the 'C' Series Index and was designed to replace the 'A' Series Index for general statistical purposes.
- (iii) *The 'C' Series Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, and some other miscellaneous items) was first compiled in 1921. It was last issued on its original basis for December quarter 1960. For certain transitional purposes a 'C' Series Index was issued for some quarters after that. This was calculated by varying the index numbers of December quarter 1960 in proportion to movements shown by the Consumer Price Index.
- (iv) *The 'D' Series Index*, derived by combining the 'A' and 'C' Series Indexes, was used by the Commonwealth Court of Conciliation and Arbitration from May 1933 to May 1934 and then discontinued.

- (v) *The Interim Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, certain services and some miscellaneous items) was first compiled in 1954 with the year 1952-53 as base = 100. As its title indicated, it was constructed as a transitional index. Its compilation was discontinued following its replacement by the Consumer Price Index in June quarter 1960.

An index of retail price movements from 1901 to 1973 is shown on page 250 of this Year Book. It is derived by linking together successive indexes (the 'A' Series, the 'C' Series and the Consumer Price Index) available for that period.

In 1937 the Commonwealth Court of Conciliation and Arbitration introduced a 'Court' Index for the purpose of its system of making automatic quarterly adjustments to the basic wage within its jurisdiction. By decision of the Court the 'Court' Index ceased to be issued by the Industrial Registrar as at December quarter 1953. These 'Court' Index numbers were an arithmetical conversion of the 'C' Series Retail Price Index.

Consumer Price Index

This retail price index was first compiled in 1960, retrospectively to September quarter 1948. A full description of the index is given in *Labour Report* No. 57, 1972. The Consumer Price Index, a chain of 'fixed weight aggregative' indexes linked at short intervals to form a continuous series, was further linked at December quarter 1973. Details of this change were published in the bulletin *Consumer Price Index, March quarter 1973* (ref. no. 9.1) and will be published also in *Labour Report* No. 58, 1973.

Origin

The list of component items and the weighting pattern of the 'C' Series Retail Price Index, first adopted in 1921, were slightly revised by a Conference of Statisticians in 1936, but otherwise continued almost unchanged until the index was discontinued in 1960. The reasons for this and the circumstances which led to the present Consumer Price Index appear from ensuing paragraphs.

From the outbreak of war in 1939 to late in 1948, periodic policy changes in regard to various war-time controls (including rationing) caused recurrent changes in consumption and in the pattern of expenditure. This rendered changes desirable, but made it impracticable either to produce a new index, or to revise the old one, on any basis that would render the index more representative than it already was of the changing pattern of household expenditure in those years.

When commodity rationing had virtually ceased in the latter part of 1948, action was taken by the Statistician to collect price data of about 100 additional items and to gather information about current consumption and expenditure patterns. This was done to facilitate review of the component items and weighting system of the 'C' Series Retail Price Index in the light of the new pattern of wage-earner expenditure and consumption that appeared to be emerging. But there supervened, in the next few years, conditions which caused wide price dispersion coupled with a very rapid rise in prices and a new sequence of changes in consumption and in the pattern of wage-earner expenditure. Under these conditions it was not possible to devise any new weighting pattern likely to be more continuously representative of conditions then current than was the existing 'C' Series Retail Price Index on the 1936 revision.

A conference of Statisticians considered the matter in June 1953, and resolved (in part) as follows:

- '(a) that, in view of the persistence of recurrent changes in the pattern of consumer expenditure in the post-war period it is undesirable to make a general revision of the list of items and weighting system of the 'C' Series Retail Price Index at present, unless industrial tribunals expressly desire some revision for special purposes;
- (b) that an Interim Retail Price Index be compiled with putative weights and components representative, as nearly as may be, of the post-war pattern of consumer usage and expenditure.'

The 'C' Series Index continued to be compiled on its pre-war basis without significant change in procedures. The Interim Retail Price Index was introduced in 1954 and continued until March quarter 1960.

The Interim Index was a transitional index designed to measure retail price variations on the 'C' Series model in terms of post-war consumption weights as emerging in the early 1950's. It embraced a wider range of commodities and services than did the 'C' Series Retail Price Index, but it did not take into account successive major changes in the pattern of expenditure and modes of living

that began to occur early in 1950 and through to 1960. These changes could not in fact be detected and measured promptly and incorporated into an index concurrently with their happening. Nor was it envisaged as desirable to adopt fundamentally new procedures in price index construction until it was fully evident that far-reaching procedural changes were necessary to meet the situation that had developed between about 1950 and 1960.

In this period home-owning largely replaced house-renting, the use of the motor car greatly increased and partly replaced use of public transport, and various items of electrical household equipment and television came into widespread use. The impact of these (and other) changes in usage upon the pattern of household expenditure was heightened by disparate movements in prices. Together, they rendered nugatory the attempt to meet the situation by devising a single Interim Retail Price Index. As studies progressed and new data became available it was clear that no single list of items and no single set of fixed weights would be adequately representative as a basis for measuring retail price changes at all times throughout the post-war period. In consequence, the situation was met by compiling the Consumer Price Index constructed as a chain of linked indexes with significant changes in composition and weighting effected at short intervals.

Purpose, scope and composition

The Consumer Price Index is a quarterly measure of variations in retail prices for goods and services representing a high proportion of the expenditure of wage-earner households. The weighting pattern relates to estimated aggregates of wage-earner household expenditures and not to estimated expenditure of an 'average' or individual household of specified size, type, or mode of living. In this way it is possible to give appropriate representation to owner-occupied houses as well as rented houses and to include motor cars, television sets, and other major expenditures which relate to some households and not to others.

Consumer (retail) price indexes are sometimes loosely called 'cost of living indexes' and are thought to measure changes in the 'cost of living'. Neither the Consumer Price Index nor any other retail price index measures those changes in the cost of living that result directly from changes in the mode or level of living. Changes of that kind are matters for consideration apart from price indexes, but the change in prices of goods and services is a very important part of the change in the cost of living and this part is measured by consumer (retail) price indexes.

The Consumer Price Index covers a wide range of commodities and services arranged in the following five major groups:

- Food;
- Clothing and drapery;
- Housing;
- Household supplies and equipment;
- Miscellaneous.

These groups do not include every item of household spending. It is both impracticable and unnecessary for them to do so. Prices are collected regularly for specified quantities and qualities of a large and representative selection of commodities and services. Movements in the prices of these items when combined in suitable proportions, provide a representative measure of price change as affecting a high proportion of the expenditure of wage-earner households.

Index numbers for sub-groups and special groupings have been compiled and published for the six State capital cities combined for each quarter from December quarter 1963. From December quarter 1968 onwards, information of contributions by index sub-groups to the total index in terms of All Groups Index Points has also been published. These details are shown in the tables on pages 31 to 33 of *Labour Report* No. 58, 1973.

Users of these figures should bear in mind that the Consumer Price Index is designed to measure the proportionate change in retail prices as combined in the five major groups and more particularly the total of the groups. For sub-groups or particular items, the index does not necessarily provide comprehensive and valid measures of price changes in those particular fields. Nor does it necessarily measure the relative influences of those classes of items in aggregate variations in prices. The Consumer Price Index is essentially a combination of selected items under various headings and not a dissection of total household expenditure into its component parts. Details of index numbers for sub-groups and special groupings are published to assist interpretation of movements shown by the Consumer Price Index and also to provide additional data of changes in retail prices.

Structure—a chain of linked indexes

Substantial changes have occurred in consumer usage and patterns of expenditure since the 1939–45 War. In order to keep the weighting pattern representative of current expenditures it has been necessary to construct indexes with additional items and changes in the weighting pattern at intervals, rather than on the basis of a list of items and set of weights that remained unchanged throughout the whole period covered. For the six State capital cities seven series for short periods (namely, from the September quarter of 1948 to the June quarter of 1952, from the June quarter of 1952 to the June quarter of 1956, from the June quarter of 1956 to the March quarter of 1960, from the March quarter of 1960 to the December quarter of 1963, from the December quarter of 1963 to the December quarter of 1968, from the December quarter of 1968 to the December quarter of 1973, and from the December quarter of 1973 onwards) have therefore been constructed and linked to form a continuous retail price index series known as the Consumer Price Index. (For information regarding these links for Canberra see *Labour Report* No. 53, 1973.)

During each period between links the items and weighting remained unchanged. At times of linking the weighting pattern was altered, and new items (mainly ones that had become significant in household expenditure) were introduced. Under this method, in effect, average percentage price movements are assessed on one pattern up to the time of the link and on another pattern thereafter. The process of linking ensures that the series reflects only price variations and not differences in cost of the old and new lists of items. The introduction of new items and weights by linking does not, of itself, raise or lower the level of the index.

Tabular statements of retail price index numbers**Consumer Price Index**

The index has been compiled for each quarter from September quarter 1948 and for each year from 1948–49. 'All Groups' index numbers and 'Group' index numbers for each of the five major groups are compiled and published regularly for the six State capital cities combined and separately and for Canberra. Index numbers for sub-groups and special groupings of the Consumer Price Index for the six State capital cities combined have been compiled and published for each quarter from December quarter 1963 and for each year from 1966–67. The reference base for these indexes is: Year 1966–67 = 100.0.

Index numbers for each quarter are first issued in mimeographed statistical bulletins available from the Commonwealth Statistician about three weeks after the end of the quarter. These bulletins contain comment on the index and on the significant price movements in that quarter. Tables showing index numbers for preceding quarters and years are presented.

The tables on the following pages show Consumer Price Index Numbers (Total All Groups) for the six State capital cities combined and separately and for Canberra for periods from the year 1956–57 (see page 247), Consumer Price Index Group Index Numbers for the six State capital cities combined for periods from the year 1956–57 (see page 248), and Consumer Price Index Group Index Numbers for each State capital city and for Canberra for recent years and quarters (see page 249).

**CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS
SIX STATE CAPITAL CITIES AND CANBERRA**

(Base of each index: Year 1966-67 = 100.0) (a)

The separate city indexes measure price movements within each city individually. They do not compare price levels as between cities.

State capital cities—combined and separately

<i>Period</i>	<i>Six State capital cities(b)</i>	<i>Sydney</i>	<i>Mel- bourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Canberra</i>
Year—								
1956-57	81.5	82.8	81.0	77.8	81.2	81.8	82.8	84.3
1957-58	82.3	84.0	81.3	79.4	81.8	82.4	82.9	84.8
1958-59	83.6	84.6	82.9	82.1	83.6	83.2	84.1	85.8
1959-60	85.7	86.5	85.3	84.2	86.2	84.8	85.6	87.6
1960-61	89.2	89.6	89.5	87.1	89.8	87.9	90.3	90.3
1961-62	89.6	89.9	89.8	88.4	89.5	88.2	90.7	91.6
1962-63	89.8	90.4	89.7	88.7	89.1	88.7	90.7	91.8
1963-64	90.6	91.4	90.4	89.6	90.2	89.8	91.7	92.5
1964-65	94.0	94.5	94.0	93.0	93.9	92.6	94.6	95.3
1965-66	97.4	97.7	97.5	97.5	97.0	96.1	98.0	98.1
1966-67	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1967-68	103.3	103.2	103.7	103.3	102.9	102.9	104.6	102.6
1968-69	106.0	106.2	106.2	105.5	105.3	105.5	106.1	104.4
1969-70	109.4	110.6	108.7	108.4	108.2	109.4	108.5	107.4
1970-71	114.6	116.8	113.1	114.2	112.5	114.1	112.6	113.0
1971-72	122.4	126.3	119.7	121.6	119.2	120.7	119.9	119.4
1972-73	129.8	133.9	127.2	128.6	126.5	127.3	126.7	126.3
Quarter—								
1969—March	106.4	106.7	106.6	105.8	105.5	105.6	106.5	104.8
June	107.2	107.6	107.2	106.3	106.4	107.0	107.0	105.2
September	107.8	108.4	107.6	107.2	106.9	107.7	107.4	106.0
December	108.7	109.6	108.3	107.9	107.3	108.7	108.1	106.7
1970—March	109.8	111.3	108.9	108.9	108.4	109.9	108.9	108.0
June	111.2	112.9	110.1	109.7	110.0	111.4	109.6	109.0
September	111.9	113.9	110.7	111.1	109.9	111.6	110.2	109.7
December	114.0	116.2	112.6	113.3	111.8	113.5	112.4	113.2
1971—March	115.2	117.4	113.7	115.1	112.9	114.8	113.2	113.6
June	117.2	119.8	115.2	117.2	115.4	116.4	114.6	115.6
September	119.4	123.3	116.5	119.0	116.5	117.2	116.5	117.2
December	122.2	126.0	119.7	121.3	119.1	120.5	120.3	119.4
1972—March	123.4	127.3	120.7	122.6	120.2	121.8	120.9	119.9
June	124.5	128.5	121.9	123.6	121.1	123.1	122.0	120.9
September	126.2	130.3	123.6	124.6	123.0	124.8	123.4	122.6
December	127.7	132.0	125.0	126.6	124.3	125.3	125.1	124.5
1973—March	130.4	134.6	127.8	129.4	127.0	127.8	127.5	127.1
June	134.7	138.8	132.3	133.9	131.6	131.4	130.8	130.9
September	139.6	144.1	136.8	139.4	136.5	134.4	135.2	135.6
December	144.6	149.4	141.9	144.0	141.9	138.6	141.1	140.8

(a) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number. (b) Weighted average.

**CONSUMER PRICE INDEX: GROUP INDEX NUMBERS
WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES**

(Base of each index: Year 1966-67 = 100.0) (a)

<i>Period</i>	<i>Food</i>	<i>Clothing and drapery</i>	<i>Housing</i>	<i>Household supplies and equipment</i>	<i>Miscel- laneous</i>	<i>All groups</i>
Year—						
1956-57	81.5	86.9	68.1	92.0	79.3	81.5
1957-58	80.1	89.5	71.0	93.4	80.4	82.3
1958-59	81.6	90.5	72.9	94.4	81.4	83.6
1959-60	84.7	91.5	75.4	95.4	83.2	85.7
1960-61	90.2	93.4	80.8	96.6	85.5	89.2
1961-62	88.6	94.4	84.0	97.9	86.1	89.6
1962-63	87.8	94.7	86.5	97.7	86.6	89.8
1963-64	89.0	95.3	89.1	96.4	87.3	90.6
1964-65	93.9	96.8	92.0	97.2	91.4	94.0
1965-66	98.4	97.9	95.9	98.9	95.8	97.4
1966-67	100.0	100.0	100.0	100.0	100.0	100.0
1967-68	104.7	102.2	104.5	101.2	102.8	103.3
1968-69	105.8	104.3	109.1	102.9	107.5	106.0
1969-70	108.1	107.5	115.5	104.1	111.6	109.4
1970-71	112.4	111.9	123.5	107.4	117.8	114.6
1971-72	116.8	118.5	133.0	111.7	131.0	122.4
1972-73	125.7	125.8	142.4	115.4	137.5	129.8
Quarter—						
1969—March	105.7	104.4	109.7	103.0	108.5	106.4
June	106.6	105.2	111.2	103.7	108.9	107.2
September	106.6	106.0	112.8	103.7	110.0	107.8
December	107.1	107.2	114.7	103.9	110.9	108.7
1970—March	108.7	107.9	116.2	104.0	112.0	109.8
June	110.1	108.9	118.3	104.7	113.5	111.2
September	110.9	109.2	120.2	105.4	113.7	111.9
December	112.0	110.9	122.7	106.6	117.5	114.0
1971—March	112.3	112.2	124.4	107.8	119.4	115.2
June	114.3	115.1	126.8	109.8	120.7	117.2
September	115.6	115.7	128.8	110.0	125.7	119.4
December	116.7	118.0	132.4	111.3	131.2	122.2
1972—March	117.5	118.8	134.1	112.5	132.8	123.4
June	117.5	121.3	136.6	113.0	134.1	124.5
September	120.1	122.2	138.5	113.7	135.6	126.2
December	121.6	124.3	141.3	114.5	136.5	127.7
1973—March	126.9	125.7	143.1	115.9	137.8	130.4
June	134.0	131.1	146.7	117.6	140.0	134.7
September	141.4	134.9	149.8	120.9	144.0	139.6
December	147.0	140.4	155.5	122.9	149.5	144.6

(a) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.

**CONSUMER PRICE INDEX: GROUP INDEX NUMBERS
SIX STATE CAPITAL CITIES AND CANBERRA**

(Base of each index: Year 1966-67 = 100.0) (a)

The index numbers hereunder are designed to measure movements in retail prices of specified groups of items for specified cities individually. They measure variations from time to time and not differences in price level as between cities.

City	Year						1973			
	1948-49	1968-69	1969-70	1970-71	1971-72	1972-73	March quarter	June quarter	Sept. quarter	Dec. quarter
FOOD GROUP										
Six State Capitals(b)	38.2	105.8	108.1	112.4	116.8	125.7	126.9	134.0	141.4	147.0
Sydney	37.9	104.9	107.8	112.8	117.5	126.1	127.6	133.6	142.6	150.0
Melbourne	38.9	107.3	109.1	112.7	116.8	125.9	127.3	135.3	141.1	145.9
Brisbane	36.8	104.7	107.7	113.5	119.0	127.5	129.2	136.2	144.7	150.0
Adelaide	38.6	106.4	107.1	109.5	113.6	123.1	123.9	132.1	140.7	145.1
Perth	38.4	104.5	108.1	112.5	116.4	124.5	124.8	131.5	135.1	137.0
Hobart	39.1	105.3	106.4	109.6	112.9	120.0	121.4	124.9	131.9	139.7
Canberra	37.6	105.1	107.0	110.7	114.9	123.9	125.7	132.0	140.1	146.0
CLOTHING AND DRAPERY GROUP										
Six State Capitals(b)	48.9	104.3	107.5	111.9	118.5	125.8	125.7	131.1	134.9	140.4
Sydney	49.0	104.2	107.5	112.0	118.7	125.9	125.7	131.1	135.3	140.8
Melbourne	48.6	104.2	107.4	111.5	117.9	125.4	125.3	130.8	134.6	139.6
Brisbane	47.8	104.3	107.3	111.7	118.0	125.3	125.4	130.2	133.9	139.5
Adelaide	49.4	104.5	108.1	112.6	119.5	127.2	126.9	132.8	135.9	141.6
Perth	50.6	104.5	107.8	112.3	118.9	126.1	126.2	131.1	134.8	140.9
Hobart	48.2	104.5	107.9	111.9	118.5	125.6	125.5	130.4	134.2	139.8
Canberra	49.5	104.2	107.5	111.7	118.2	125.6	125.4	130.7	134.1	139.6
HOUSING GROUP										
Six State Capitals(b)	40.5	109.1	115.5	123.5	133.0	142.4	143.1	146.7	149.8	155.5
Sydney	41.1	110.5	119.9	131.6	143.2	154.9	155.5	160.5	164.0	168.8
Melbourne	41.3	107.9	112.2	117.8	124.9	133.1	133.8	137.0	139.5	146.2
Brisbane	41.3	109.6	113.4	118.3	128.8	136.7	137.2	140.2	143.3	148.1
Adelaide	38.4	104.7	109.3	115.9	124.4	133.3	134.2	136.6	140.6	148.1
Perth	36.1	112.7	120.1	125.7	133.7	139.7	140.4	141.7	143.9	147.8
Hobart	36.8	108.4	112.6	117.4	124.2	131.8	132.7	134.4	137.1	146.8
Canberra	41.8	101.9	104.6	116.3	121.9	128.4	129.7	130.8	133.0	140.5
HOUSEHOLD SUPPLIES AND EQUIPMENT GROUP										
Six State Capitals(b)	58.3	102.9	104.1	107.4	111.7	115.4	115.9	117.6	120.9	122.9
Sydney	59.7	103.0	104.8	109.3	114.6	118.4	118.9	120.5	123.8	125.9
Melbourne	55.0	102.9	103.5	105.8	108.9	112.1	112.4	114.0	117.9	119.6
Brisbane	58.9	104.3	105.5	108.5	112.7	116.9	117.6	118.9	123.3	125.0
Adelaide	64.9	101.1	102.0	105.4	109.2	113.0	113.4	116.0	117.6	119.6
Perth	60.4	102.1	103.7	107.7	112.7	117.4	117.9	120.0	121.8	124.8
Hobart	53.4	104.5	106.1	109.2	116.4	120.3	120.3	122.5	125.5	126.7
Canberra	61.4	100.6	101.9	104.7	107.5	111.9	111.5	115.9	117.7	118.8
MISCELLANEOUS GROUP										
Six State Capitals(b)	44.7	107.5	111.6	117.8	131.0	137.5	137.8	140.0	144.0	149.5
Sydney	46.5	108.5	113.7	120.3	137.4	143.7	144.0	146.2	149.8	154.2
Melbourne	42.2	107.3	110.2	115.8	127.1	134.5	134.8	136.9	141.8	148.1
Brisbane	44.4	106.0	109.2	117.3	127.7	133.5	133.7	137.2	141.9	146.2
Adelaide	47.1	107.0	112.0	118.1	128.3	133.7	134.0	135.6	139.3	146.1
Perth	45.4	105.6	109.8	114.8	124.5	130.4	131.1	132.1	134.9	141.5
Hobart	43.5	108.0	111.0	116.6	129.3	136.6	137.7	141.0	144.2	148.6
Canberra	50.2	107.0	112.4	119.3	130.4	135.9	136.5	137.5	141.9	146.9

(a) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number. (b) Weighted average.

Retail Price Index Numbers, 1901 to 1973

The index numbers shown below are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946-47, the 'C' Series Retail Price Index; from 1946-47 to 1948-49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948-49 onwards, the Consumer Price Index.

RETAIL PRICE INDEX NUMBERS: SIX STATE CAPITAL CITIES COMBINED, 1901 TO 1973

(Base: Year 1911 = 100.0)

Year	Index number	Year	Index number	Year	Index number
1901	88	1926	168	1951	313
1902	93	1927	166	1952	367
1903	91	1928	167	1953	383
1904	86	1929	171	1954	386
1905	90	1930	162	1955	394
1906	90	1931	145	1956	419
1907	90	1932	138	1957	429
1908	95	1933	133	1958	435
1909	95	1934	136	1959	443
1910	97	1935	138	1960	459
1911	100	1936	141	1961	471
1912	110	1937	145	1962	469
1913	110	1938	149	1963	472
1914(a)	114	1939	153	1964	483
1915(a)	130	1940	159	1965	502
1916(a)	132	1941	167	1966	517
1917(a)	141	1942	181	1967	534
1918(a)	150	1943	188	1968	548
1919(a)	170	1944	187	1969	564
1920(a)	193	1945	187	1970	586
1921(a)	168	1946	190	1971	621
1922(a)	162	1947	198	1972	658
1923	166	1948	218	1973	720
1924	164	1949	240		
1925	165	1950	262		

(a) November.

International comparisons

The following table shows index numbers of consumer (retail) prices for various countries. Except where otherwise noted, the year 1963 is taken as base (= 100). The index numbers show fluctuations in prices in each country, and do not measure relative price levels as between countries.

**INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES
ALL GROUPS INDEXES**

(Source: *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations)
(Base of each Index: Year 1970 = 100.0)

Period	Australia	Belgium (a)	Brazil (Sao Paulo) (b)	Canada	France	Federal Republic of Germany	India (c)	Indonesia (Ja- karta)	Italy	Japan	Nether- lands
1966	88	88	42	86	83	92	86	13	88	81	83
1967	91	90	55	89	85	93	97	34	-92-	84	-86-
1968	94	93	68	93	89	95	100	76	93	88	89
1969	96	96	84	97	95	97	95	89	95	93	96
1970	100	100	100	100	-100-	100	100	100	100	-100-	100
1971	106	104	121	103	106	105	103	104	105	106	-108-
1972	112	-110-	110	108	112	111	110	111	111	111	116
1973	123	118	127	-116-	120	119	128	146	123	124	125
Quarter— 1973—											
March	117	115	120	112	116	116	116	131	118	116	121
June	121	117	125	114	118	118	124	138	122	122	125
Sept.	125	118	129	118	121	119	134	151	124	126	126
Dec.	129	121	133	120	124	122	140	163	128	132	129

Period	New Zealand	Norway	Pakistan (Karachi) (d)	Philip- pines (Manila) (e)	Singa- pore	Republic of South Africa(f)	Sweden	Switzer- land	United Kingdom	United States of America	West Malay- sia(g)
1966	81	81	86	86	96	88	86	88	83	84	96
1967	86	85	92	92	99	91	89	-92-	85	86	99
1968	90	88	92	92	100	92	91	94	89	90	99
1969	94	90	95	95	100	95	93	97	94	94	98
1970	100	100	100	100	100	-100-	100	100	100	100	100
1971	110	106	105	123	102	106	107	107	109	104	102
1972	118	114	114	143	104	113	114	114	117	108	105
1973	128	122	140	153	128	124	122	124	128	114	116
Quarter— 1973—											
March	123	119	123	139	113	120	118	120	123	111	109
June	126	122	132	145	122	122	120	122	127	113	113
Sept.	129	123	146	158	135	125	122	124	129	116	118
Dec.	132	126	158	170	143	128	125	129	133	118	124

(a) Excluding rent. (b) Beginning 1972, base: December 1971 = 100. (c) Prior to 1969, base: 1968 = 100.
(d) Industrial workers. (e) Low income group, prior to 1970. (f) White population. (g) Beginning 1967, new index.

Note. Symbol — on each side of an index number (e.g. -95-) indicates that two series have been linked during that period. Symbol — between two index numbers indicates that it is not possible to link two series (because of change in scope, etc.) and therefore the index numbers are not comparable with each other even though they may be shown on the same base period.

WHOLESALE PRICES AND PRICE INDEXES

Two indexes of wholesale prices of basic materials have been compiled by the Australian Bureau of Statistics. These are:

- (i) the Melbourne Wholesale Price Index;
- (ii) the Wholesale Price (Basic Materials and Foodstuffs) Index.

New series of wholesale price index numbers relating to materials used and articles produced by defined areas of the economy are being developed. Three such indexes have already been published. They are the Price Index of Materials used in Building other than House Building (issued April 1969), the Price Index of Materials used in House Building (issued November 1970) and the Price Index of Metallic Materials used in the Manufacture of Fabricated Metal Products (issued December 1972). Work continues on the preparation of further measures.

Two special purpose measures, the Price Index of Electrical Installation Materials and Price Indexes of Copper Materials used in the Manufacture of Electrical Equipment, are also published by the Bureau.

Melbourne Wholesale Price Index

An index of Melbourne wholesale prices was first compiled in 1912. It related chiefly to basic material and foods weighted in accordance with consumption in the years immediately preceding that year. Neither the list of items nor the weighting was varied, except for some changes in the building materials group in 1949. The series has some historical significance as a measure of changes, since the year 1861, in the prices of its component items combined in the proportions in which they were in common use about the year 1910. A description of the index and a list of the commodities included in it were published in *Labour Report* No. 38, 1949, pages 43-5. Index numbers up to the year 1961, the last year for which the index was compiled, were published in Year Book No. 48, 1962.

Wholesale Price (Basic Materials and Foodstuffs) Index

General publication of this index was discontinued with the issue of index numbers for the month of December 1970. Index numbers up to that period may be found in the mimeographed bulletin *Wholesale Price (Basic Materials and Foodstuffs) Index* (9.4) or in the printed publications *Monthly Review of Business Statistics* and *Quarterly Summary of Australian Statistics*.

The index related to commodities priced in their primary or basic form wherever possible and as nearly as might have been at the point where they first made effective impact on the local price structure. With a few exceptions, prices were from Melbourne sources. The weights were based on estimates of the average annual consumption of the commodities in Australia during the period 1928-29 to 1934-35 inclusive.

A list of the commodities and other information concerning the Wholesale Price (Basic Materials and Foodstuffs) Index is given in *Labour Report* No. 53, 1967, pages 38-41.

Price Index of Electrical Installation Materials

This special purpose index was introduced in 1964, and index numbers were published at quarterly intervals from August 1959 to February 1969, when monthly publication commenced. In addition to its use in connection with the Bureau's constant price estimates in the national accounting field, the index has a direct value as a measure of changes in aggregate cost of materials used in an important part of the building industry (other than house building).

A description of this index is given in Year Book No. 58, 1972, pages 239-40. Index numbers are published monthly in *Wholesale Price Indexes—Price Index of Electrical Installation Materials* (9.5).

Price Index of Materials used in Building other than House Building

General

This index was introduced in April 1969 and relates to the construction of buildings other than houses. Further information concerning the method of compiling the index, as well as more detailed group index numbers for each capital city, will be found in the publication *Price Index of Materials used in Building other than House Building* (9.6) of 23 April 1969 and subsequent issues, as well as in the *Labour Report* No. 58, 1973.

Scope and composition

The index measures changes in prices of selected materials used in the construction of buildings other than houses and 'low-rise' flats (in general, those up to three storeys). Its composition is in accordance with the materials usage in actual building projects which were selected as representative for the purpose.

The index includes 72 items, combined in eleven groups, in addition to an 'All Groups' index. Some items carry the weights of similar items not directly priced. Items are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality.

Although the selected materials (or many of them) are also used in house (and low-rise flat) building, in building repair, maintenance and alteration work, and in 'engineering construction' work (e.g. projects such as roads, dams, bridges and the like), the weighting pattern of the index, being designed for the specific purpose mentioned in the first paragraph of this section, is not applicable to these other activities of the Construction industry. In addition, since the weights are based on an average materials usage over a range of building 'use-types' (e.g. office building, factory, etc.), the index is not necessarily applicable to any specific building or any particular type of building.

Base period and method of calculation

The reference base of the index is the year 1966-67 = 100.0. The weighting base corresponds broadly with the reference base, but does not exactly coincide because of the nature of the data from which the weights were derived.

The index is a fixed-weights index and is calculated by the method known as 'the weighted arithmetic mean of price relatives'.

Derivation of items and weights

The items and weights used in the index were derived from reported values of each material used in selected representative buildings constructed in or about 1966-67. The selection took account of building use-type and construction characteristics (e.g. type of frame, wall, floor, etc.) within use-types. Information of the former was obtained from building statistics, and of the latter from an *ad hoc* survey of approximately 800 buildings.

The weights

The weighting pattern used in the index is given in Year Book No. 55, 1969, pages 1259-60, as well as in the publications referred to in the paragraph under General above. This single weighting pattern relating to the whole of Australia, is applied (with minor exceptions) to local price measures in calculating indexes for each State capital city.

The index for the six State capital cities combined is a weighted average of individual city indexes. The relative weighting of the capitals is in proportion to the estimated value on completion of building other than house building in the separate States during the three years ended June 1967.

Prices

Prices are collected as at the mid-point of the month to which the index refers, or as near thereto as practicable. They relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in building. In general the point of pricing is 'delivered on site' but in some cases it has been necessary to use the nearest realistic price available, e.g. that for 'supplied and fixed'. Local prices are used in the indexes for each capital city with the main exception that, for the whole of the group Electrical Installation Materials and the majority of the items in the group Mechanical Services Components, Sydney and Melbourne price series are used.

Index numbers

The index has been compiled for each month from July 1966, and for the financial years from 1966-67. Index numbers for the individual groups and all groups for the weighted average of the six State capital cities, and for all groups combined for each State capital city, are given in the following tables. Figures are published to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

The separate city indexes measure price movements in each State capital city individually. They enable comparisons to be drawn between capitals as to differences in degree of price movement from period to period, but not as to differences in price level.

In interpreting movements in the index, particularly those from month to month, it should be noted that changes frequently occur in an uneven fashion both over time and also for separate capital cities, as between the same points of time. Changes in index numbers for individual months should not be interpreted in isolation and without reference to changes over longer periods.

PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN
HOUSE BUILDING

GROUP INDEX NUMBERS—WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(Base of each Index: Year 1966-67 = 100.0) (a)

Period	Concrete mix, cement, sand, etc	Cement products	Bricks, stone, etc.	Timber, board and joinery	Steel and iron products	Aluminium products
1968-69	103.5	106.8	108.2	107.2	106.1	103.9
1969-70	106.9	111.7	112.6	111.2	110.1	107.4
1970-71	113.0	118.0	118.6	117.0	115.8	113.0
1971-72	120.6	126.1	124.2	123.4	125.4	119.3
1972-73	124.5	135.0	130.1	132.9	130.3	125.4
1973-74—						
July	131.4	140.1	136.6	147.6	137.0	132.1
August	130.9	142.9	137.7	149.8	138.7	132.5
September	131.4	143.3	138.6	152.1	140.2	133.8
October	132.5	143.5	143.7	152.5	141.1	133.8
November	132.5	143.9	143.8	153.9	144.2	134.6
December	133.0	144.5	147.2	157.9	145.4	134.8

**PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING
GROUP INDEX NUMBERS—WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES—continued**

<i>Period</i>	<i>Other metal products</i>	<i>Plumbing fixtures</i>	<i>Miscellaneous materials</i>	<i>Electrical installation materials</i>	<i>Mechanical services components</i>	<i>All groups</i>
1968-69	106.8	103.3	103.2	102.1	107.7	105.6
1969-70	126.3	113.7	105.8	112.2	111.8	110.5
1970-71	121.4	121.3	110.3	110.9	119.0	115.5
1971-72	120.6	134.3	116.9	114.7	127.7	123.0
1972-73	126.4	143.5	124.5	120.5	132.4	128.9
1973-74—						
July	147.1	152.6	129.2	129.7	136.9	136.7
August	157.9	154.9	129.8	136.2	136.7	138.5
September	154.1	155.1	129.9	133.6	137.2	139.2
October	154.8	155.3	130.8	133.0	137.6	140.0
November	156.0	155.5	131.1	135.5	137.8	141.5
December	157.4	155.5	131.6	136.5	138.5	142.8

(a) Figures are shown to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

**PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING
ALL GROUPS INDEX NUMBERS—SIX STATE CAPITAL CITIES**

(Base of each Index: Year 1966-67 = 100.0) (a)

NOTE. The separate city indexes measure price movements within each city individually. They do not compare price levels as between cities.

<i>Period</i>	<i>State capital cities</i>						<i>Weighted average of six State capital cities</i>
	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	
1968-69	106.5	105.0	105.1	105.0	104.7	105.1	105.6
1969-70	111.7	109.8	110.3	109.4	108.9	109.7	110.5
1970-71	116.4	115.1	116.4	113.9	113.3	115.0	115.5
1971-72	122.4	123.9	124.4	122.7	121.3	122.6	123.0
1972-73	127.2	131.2	130.4	129.8	126.3	129.7	128.9
1973-74—							
July	135.1	139.2	138.4	137.4	132.9	137.2	136.7
August	137.0	140.6	139.9	139.4	136.0	138.4	138.5
September	137.7	141.3	141.1	139.3	136.4	138.8	139.2
October	138.9	141.5	142.7	139.4	137.0	139.0	140.0
November	140.0	143.2	145.1	140.8	138.8	139.6	141.5
December	141.3	144.3	146.9	142.6	139.6	140.9	142.8

(a) Figures are shown to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

Price Index of Materials used in House Building

General

This index, referring to materials used in house building, was introduced in November 1970 and is complementary to the Price Index of Materials used in Building other than House Building. Further information concerning the method of compiling the index, as well as more detailed group index numbers and the separate weighting patterns for the six State capital cities, will be found in the publication *Price Index of Materials used in House Building (9.9)* of 27 November 1970. This and subsequent issues are available on request. A full description of the index is also given in *Labour Report No. 58, 1973*.

Scope and composition

The index measures changes in prices of selected materials used in the construction of houses. Its composition is in accordance with the usage of materials in actual houses which were selected as representative for the purpose. The index does not purport to represent buildings of any kind other than houses. The house building construction types included are those which use brick, brick veneer, timber or asbestos cement sheeting as the principal material for the outer walls.

The numbers of items included in the lists for the respective State capital cities vary between 49 and 51. In all cases the selection of materials was based on local usage. Items are combined in eleven groups in addition to the 'All groups' index. Some items carry the weight of similar items not directly priced. They are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality.

Base period and method of calculation

In the interests of uniformity and ease of use, the reference base of the index is the year 1966-67 = 100.0, the same as that used for the Price Index of Materials used in Building other than House Building. However, because of the later time at which the weighting source data were collected, the weighting base approximates more closely to the year 1968-69.

The index is a fixed weights index and is calculated by the method known as 'the weighted arithmetic mean of price relatives'.

Derivation of items and weights

The items and weights used in the index were derived from reported values of each material used in selected representative houses constructed in or about 1968-69 in each State capital city. The selection took account, within the four major construction types, of a range of characteristics of these houses—e.g. internal partitions, windows, roofing, etc., as well as whether such things as paths and fences were included in the job. Information of this nature was obtained from an *ad hoc* survey of some 250 house builders from whom data regarding approximately 900 houses representative of their operations were obtained. The survey was conducted in all State capital cities.

The weights

The group and item weights used in the index for each State capital city are given in the publications referred to in the paragraph under General above. The pattern resulting from their aggregation over the six State capitals is given in the Year Book No. 57, 1971, pages 236-7 as well as in those publications referred to above.

Each State capital city has a unique weighting pattern which reflects the difference in the estimated relative importance of given items as between cities. The weighting pattern for each capital city is applied to local price measures in calculating indexes for that city.

Prices

Price series used relate to specified standards of each commodity with the aim of incorporating in the index price changes for representative materials of constant quality. In general the point of pricing is 'delivered on site', but in some cases it has been necessary to use the nearest realistic price available, e.g. that for 'supplied and fixed'. The price series are obtained in all State capital cities from representative suppliers of materials used in house building. In the main they are collected as at the mid-point of the month to which the index refers, or as near thereto as practicable.

Index numbers

The index has been compiled for each month from July 1966, and for the financial years from 1966-67. Index numbers for the individual groups and all groups for the six State capital cities combined and for all groups combined for each State capital city, are given in the following tables. Figures are published to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

The separate city indexes measure price movements in each State capital city individually. They enable comparisons to be drawn between capitals as to differences in degree of price movement from period to period, but not as to differences in price level.

In interpreting movements in the index, particularly those from month to month, it should be noted that changes frequently occur in an uneven fashion both over time and also for separate capital cities, as between the same points of time. Changes in index numbers for individual months should not be interpreted in isolation and without reference to changes over longer periods.

PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING
GROUP INDEX NUMBERS—WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES

(Base of each Index: Year 1966-67 = 100.0) (a)

<i>Period</i>	<i>Concrete mix, cement and sand</i>	<i>Cement products</i>	<i>Clay bricks, tiles, etc.</i>	<i>Timber, board and joinery</i>	<i>Steel products</i>	<i>Other metal products</i>
1968-69	103.8	107.0	107.8	108.6	104.8	106.3
1969-70	107.1	112.6	112.4	113.5	110.0	111.8
1970-71	113.4	121.8	118.0	118.5	115.0	112.4
1971-72	121.2	132.0	124.5	124.8	127.9	118.5
1972-73	127.0	139.9	130.7	137.0	136.8	124.9
1973-74—						
July	132.2	148.0	137.6	153.9	143.9	136.9
August	132.0	149.2	138.8	155.6	147.0	142.1
September	132.3	149.2	140.3	160.1	147.0	141.6
October	133.3	150.1	144.1	160.9	147.6	141.9
November	133.4	150.1	144.2	162.9	149.3	142.6
December	134.1	150.3	147.1	167.5	151.1	144.4

<i>Period</i>	<i>Plumbing fixtures</i>	<i>Electrical installation materials</i>	<i>Installed appliances</i>	<i>Plaster and plaster products</i>	<i>Miscellaneous materials</i>	<i>All groups</i>
1968-69	102.0	105.2	99.7	103.0	104.5	106.3
1969-70	108.7	115.8	102.2	105.1	107.4	110.9
1970-71	113.6	115.0	103.8	109.4	111.0	115.7
1971-72	122.6	120.2	107.4	116.9	116.4	122.7
1972-73	129.6	126.2	108.3	118.7	124.9	131.1
1973-74—						
July	136.6	135.7	110.6	119.0	130.4	141.3
August	139.2	143.7	112.5	119.3	131.4	143.1
September	139.4	141.1	112.8	119.3	131.4	144.9
October	139.8	140.9	113.3	119.4	131.7	145.9
November	140.1	143.0	114.2	119.4	132.3	146.9
December	140.1	144.3	114.9	119.7	133.2	149.4

(a) Figures are shown to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

**PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING
ALL GROUPS INDEX NUMBERS—SIX STATE CAPITAL CITIES**

(Base of each Index: Year 1966-67 = 100.0) (a)

NOTE. The separate city indexes measure price movements within each city individually. They do not compare price levels as between cities.

Period	State capital cities						Weighted average of six State capital cities
	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	
1968-69 . . .	109.3	103.6	105.6	107.0	105.9	104.1	106.3
1969-70 . . .	115.2	107.2	109.4	112.4	110.3	107.7	110.9
1970-71 . . .	119.8	112.3	115.2	116.7	113.9	114.3	115.7
1971-72 . . .	126.1	118.9	124.8	124.8	121.1	120.7	122.7
1972-73 . . .	135.6	126.5	133.8	134.8	126.9	130.8	131.1
1973-74—							
July . . .	146.7	137.6	143.4	145.9	133.8	137.8	141.3
August . . .	149.2	138.9	145.0	147.8	135.4	138.9	143.1
September . . .	152.3	140.2	146.0	149.4	136.5	139.6	144.9
October . . .	154.6	140.2	147.2	149.5	137.3	139.7	145.9
November . . .	155.2	141.8	147.8	150.9	138.5	140.4	146.9
December . . .	157.0	145.0	150.1	155.2	139.7	144.4	149.4

(a) Figures are shown to one decimal place to avoid distortions that would occur in rounding off index numbers to the nearest whole number.

Price Index of Metallic Materials used in the Manufacture of Fabricated Metal Products

General

This index, relating to important metallic materials used in the manufacture of fabricated metal products, was introduced in December 1972. In addition to constituting a further step in the publication of an expanded range of wholesale price indexes, this index and the Price Index of Copper Materials Used in the Manufacture of Electrical Equipment (*see* page 258) have been designed as a modern replacement for the metals components of the Wholesale Price (Basic Materials and Food-stuffs) Index.

The composition and weighting pattern of the index is given in the publication *Price Indexes of Metallic Materials (9.10)* of 14 December 1972. This and the subsequent issues are available on request. A full description of the index is also given in *Labour Report* No. 58, 1973.

Scope and composition

The index includes important metallic materials selected and combined in accordance with a weighting pattern reflecting value of usage as reported at the 1968-69 Census of Manufacturing Establishments for establishments classified to the Fabricated Metal Products Sub-division of Manufacturing Industry (Australian Standard Industrial Classification Sub-division 31).

Index numbers are compiled and published for four groupings of items and for the 'All groups' combination. The materials have been grouped under the headings Iron and steel, Aluminium, Copper and brass, and Other metallic materials.

Base period and method of calculation

The reference base of the index is the year 1968-69 = 100.0. The index is a fixed weights index and is calculated by the method known as 'the weighted arithmetic mean of price relatives'.

Prices

Prices for each of the items relate to representative goods of fixed specification collected from a selection of representative sources. In each case, these specifications are sufficiently detailed to ensure that the price changes incorporated in the indexes are measured, as far as possible, on the basis of constant quality.

The price series used are obtained monthly, by mail collection, from major Australian manufacturers of the relevant materials. In the main prices are collected as at the mid-point of each month.

The prices collected are, as far as possible, those normally charged to representative manufacturers for goods delivered into their stores.

Index numbers

The index has been compiled for each month from July 1968, and for financial years from 1968-69. Index numbers for financial years are simple averages of the relevant monthly index numbers. Index numbers for each group and all groups are given below. In interpreting movements in the index, particularly those from month to month, it should be noted that changes frequently occur in an uneven fashion over time. Changes in index numbers for individual months should not be interpreted in isolation and without reference to changes over longer periods. Figures are published to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

**PRICE INDEX OF METALLIC MATERIALS USED IN THE MANUFACTURE
OF FABRICATED METAL PRODUCTS—GROUP INDEX NUMBERS**

(Base of each Index: Year 1968-69 = 100.0) (a)

<i>Period</i>	<i>Iron and steel</i>	<i>Aluminium</i>	<i>Copper and brass</i>	<i>Other metallic materials</i>	<i>All groups</i>
1969-70	104.2	102.2	122.5	93.8	104.8
1970-71	106.7	104.5	106.5	90.9	106.2
1971-72	116.2	106.8	106.2	83.6	114.1
1972-73	122.6	109.2	106.6	98.7	120.0
1973-74—					
July	125.6	112.6	127.4	119.3	124.4
August	125.7	112.6	142.8	113.6	125.2
September	125.8	112.6	135.1	108.7	124.8
October	125.8	113.3	131.7	118.9	124.9
November	130.9	114.0	138.1	116.7	129.5
December	131.6	115.3	140.0	127.3	130.6

(a) Figures are published to one decimal place to avoid distortions that would occur in rounding off the index numbers to the nearest whole number.

**Price Indexes of Copper Materials used in the Manufacture of
Electrical Equipment**

This special purpose measure was introduced in December 1972. In addition to constituting a further step in the publication of an expanded range of wholesale price indexes, it has been designed to supplement the Price Index of Materials Used in the Manufacture of Fabricated Metal Products in providing a replacement for the metals components of the Wholesale Price (Basic Materials and Foodstuffs) Index.

A description of this index is given in *Labour Report* No. 58, 1973. Index numbers are shown in the monthly publication *Price Indexes of Metallic Materials* (9.10).

EXPORT PRICE INDEXES

An annual index of export prices has been published by the Bureau since its inception. Brief descriptions of indexes issued between 1901 and 1962 (that is, prior to the introduction of the current Export Price Index) are shown in Year Book No. 55, 1969, pages 256-7.

The current Export Price Index

The current Export Price Index was first published in October 1962, but index numbers were compiled back to July 1959. The reference base of this index is: year 1959-60 = 100.0. Index numbers from July 1969 have been compiled on an interim basis which incorporates a re-weighting of the items contained in the original index, and the inclusion of some additional items. This interim basis was introduced pending completion of a comprehensive review and re-basing of the index as a whole.

The Export Price Index is a fixed-weights index, and its purpose (as was that of the previous fixed-weights index) is to provide comparisons monthly, over a limited number of years, of the level of export prices of the selected items, making no allowance for variations in quantities exported.

The index numbers are thus measures of price change only. The price series used in the index relate to specified standards for each commodity and in most cases are combinations of prices for a number of representative grades, types, etc. For some commodities price movements in the predominant market, or markets, are used, while for other commodities average realisations in all export markets are used. As nearly as possible, prices used are on the basis f.o.b. at the main Australian ports of export. The index is calculated by the method known as 'the weighted arithmetic mean of price relatives'.

Composition and weighting

Over the period of ten years between July 1959 and June 1969, there were twenty-nine items in the export price index, and the weights used to combine these were based on average annual values of exports during the years 1956-57 to 1960-61. The twenty-nine items constituted in excess of 80 per cent of the total value of Australian exports in the earlier part of the ten years mentioned, this percentage, however, decreased markedly in more recent years. A review of the content and weighting pattern of the index was consequently undertaken, and an interim series incorporating some of the results of this review was introduced with effect from July 1969.

Interim basis

The interim series is a fixed-weights export price index, compiled monthly as from June 1969, which has been linked at June 1969 to the current index in its original form. The weights of the items in the interim series are derived from the values of exports for the year 1969-70, and the group weights have been adjusted to reflect the proportion that the value of wool bore to the value of all exports in that year. In addition to the twenty-nine items of the current index as first introduced, the interim series includes the four items; iron ore, bauxite, alumina and mineral sands. These items are not attached to any of the original single groups of the index but are incorporated in the 'All groups' index number from June 1969. The thirty-three items contained in the interim series constituted 74 per cent of the total value of Australian exports (merchandise and non-merchandise) in 1969-70.

Index numbers

Index numbers for each of the groups and 'All groups' are shown in the following table. The yearly index numbers are simple averages of the twelve monthly index numbers in each year.

EXPORT PRICE INDEX NUMBERS

(Base of each Index: Year 1959-60 = 100.0)

Period	Wool	Meats	Dairy produce	Cereals	Dried and canned fruits	Sugar	Hides and tallow	Metals and coal (a)	Gold	All groups
1967-68 .	95	125	79	109	95	67	67	120	104	100
1968-69 .	99	131	72	104	97	72	73	123	117	102
1969-70(b) .	87	148	73	96	99	93	94	143	109	(c)103
1970-71 .	67	152	88	100	102	113	94	139	109	(c)101
1971-72 .	72	147	135	99	103	127	96	138	126	(c)104
1972-73 .	179	178	p119	102	p106	136	139	142	180	(c)p134
1973-74—										
July .	217	201	p115	99	p143	143	164	165	274	p150
August .	213	213	p113	110	p142	124	173	171	266	p153
September .	193	225	p108	138	p135	141	163	167	224	p152
October .	180	223	p107	150	p135	135	168	167	219	p150
November .	166	218	p109	145	p134	134	158	172	(d)219	p147
December .	186	213	p106	144	p131	128	144	182	230	p152

(a) Comprises coal iron and steel, copper, zinc, lead and silver. Does not include iron ore, bauxite, alumina and mineral sands, which, however, have been included in the 'All groups' index from July 1969. (b) Interim series linked as at June 1969. (c) Interim series includes, in addition to the specified groups the 4 items; iron ore, bauxite, alumina and mineral sands. (d) Nominal.

Link between current and previous indexes

In order to show approximate movements in export prices over a long period, the 'All groups' indexes of the successive series have been linked together at the earliest year for which each of the indexes was compiled. The table below shows this linked series and a long-term price index for wool which is the most important single component in the movement of the 'All groups' index.

EXPORT PRICE INDEX NUMBERS—LINKED SERIES 1936-37 TO 1972-73

(Base of each Index: Year 1959-60 = 100.0)

<i>Period</i>	<i>Wool</i>	<i>All groups</i>	<i>Period</i>	<i>Wool</i>	<i>All groups</i>
1936-37	29	30	1956-57	136	117
1937-38	23	27	1957-58	111	102
1938-39	19	22	1958-59	85	90
1939-40	23	26	1959-60	100	100
1940-41	24	28	1960-61	92	95
1941-42	24	28	1961-62	97	96
1942-43	28	30	1962-63	104	101
1943-44	28	31	1963-64	120	114
1944-45	28	34	1964-65	102	105
1945-46	28	39	1965-66	107	107
1946-47	41	54	1966-67	103	105
1947-48	68	75	1967-68	95	100
1948-49	86	88	1968-69	99	102
1949-50	111	101			
1950-51	235	173			
1951-52	133	125			
1952-53	145	128	1969-70(a)	87	103
1953-54	145	125	1970-71	67	101
1954-55	127	114	1971-72	72	104
1955-56	109	105	1972-73	179	p134

(a) Interim series linked as at June 1969.

WAGES, EARNINGS AND HOURS**Arbitration and Wages Boards Acts and associated legislation**

Summaries of the operation of Federal and State Acts regulating rates of pay, hours and other conditions of employment were first compiled for the year 1913 and particulars for this and subsequent years have appeared in the annual *Labour Report*. This report summarises the position at the end of 1973.

Federal industrial legislation and tribunals

Under paragraph (xxxv) of Section 51 of the Australian Constitution the Australian Parliament is empowered to make laws with respect to 'conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State'. In 1904 the Conciliation and Arbitration Act was passed by the Australian Parliament and this Act with amendments has been in operation since then.

In addition to this 'conciliation and arbitration' power the Australian Parliament can legislate concerning conditions of employment for its own employees and for employees in Australian Territories. Under the interstate and overseas trade and commerce power (paragraph (i) of Section 51 of the Constitution) the Parliament can legislate directly in respect of industries such as the maritime and stevedoring industries. In times of national emergency the defence power of the Constitution (paragraph (vi) of section 51) enables Parliament to have direct control over all industry.

The Conciliation and Arbitration Act provides for the separation of the judicial functions from the conciliation functions and for the establishment of the Australian Industrial Court to deal with judicial matters and the Australian Conciliation and Arbitration Commission to deal with the functions of conciliation and arbitration under the Act. A summary of the main provisions of the Act operative to the end of 1973 is given in the following paragraphs.

The Australian Industrial Court is a superior court of record comprising a Chief Judge and not more than nine other Judges. The Court carries out the judicial functions associated with the settlement of disputes such as determining questions of law referred by the Commission or the

Registrar, hearing complaints against employers for dismissing employees because of union activities or arbitration work, interpreting awards, determining eligibility for membership of an organisation, determining questions relating to rules of an organisation, enquiring into allegations or irregularities in the conduct of elections conducted by organisations, and hearing complaints of breaches of awards and ordering compliance with awards and orders of the Commission. In certain circumstances the jurisdiction of the Court is exercised by a bench of not less than three Judges—in other cases by a single Judge.

The Australian Conciliation and Arbitration Commission consists of a President, Deputy Presidents and Commissioners. The President is required to have qualifications for judicial appointment. The other Presidential Members must have similar qualifications; or must have had experience at a high level in industry, commerce, industrial relations or the service of a government or government authority; or must have obtained a degree or similar qualification in law, economics, industrial relations or some other relevant field of study. Members of the Commission are appointed by the Australian Government and may hold office until 65 years of age.

The Commission carries out its functions of conciliation and arbitration through panels or task forces. The President assigns an industry or a group of industries to a panel consisting of a Presidential Member and one or more Commissioners.

When the Commission receives notification of a dispute, or of one which is likely to occur, a member of the appropriate panel takes steps to prevent or settle the dispute. Negotiation may take place between the parties outside the Commission or under the supervision of the Commission. If the parties reach agreement they may make a memorandum of their agreement and have it certified by the Commission. Some issues in dispute may be resolved by agreement and others determined by arbitration by the Commission.

Certain matters cannot be determined by a single member of the Commission. Those matters which must be determined by a Full Bench of the Commission, consisting of a number of Presidential Members and Commissioners, include standard hours, national wage cases, the minimum wage, equal pay principles, annual leave and long service leave. Full Benches of the Commission also hear appeals from decisions of single members and deal with references from single members. Appeals and references from the Public Service Arbitrator or Deputy Arbitrators are heard by Full Benches. When matters relating to appeals or references under both or either of the Conciliation and Arbitration Act and the Public Service Arbitration Act are being heard, the Commission may sit in joint session (i.e. comprised of persons constituting the Commission in the separate matters) to take evidence and hear arguments. In any proceedings before a Full Bench, the Minister for Labor and Immigration may, on behalf of the Australian Government, intervene in the public interest. Others may apply to the Commission for leave to intervene which may be granted if the Commission thinks that the person or organisation should be heard.

The Act provides that a member of the Commission assigned by the President should handle industrial matters in the maritime industries and the stevedoring industry, other than those matters that must be dealt with by a Full Bench.

The jurisdiction of the Commission is limited to conciliation and arbitration of interstate industrial disputes between employers and employees. The employees must be engaged in employment that is 'industrial' in character. It has been held, for example, that school teachers, nurses, police and fire-fighters employed by government authorities are not engaged in 'industrial' employment. However, in the case of employees in the Northern Territory and the Australian Capital Territory the Commission has jurisdiction to settle industrial disputes whether or not the employees are engaged in an *industry* in the constitutional sense of the word.

The Conciliation and Arbitration Act provides that where a State law, or an order, award, decision or determination of a State industrial tribunal is inconsistent with or deals with a matter dealt with in an award of the Commission, the latter shall prevail and the former, to the extent of the inconsistency or in relation to the matter dealt with, shall be invalid.

Wages, hours of work and other conditions of employment of Australian Government employees are regulated by the Australian Public Service Arbitrator and the Deputy Public Service Arbitrators under powers conferred by the *Public Service Arbitration Act 1920-1973*. Appeals and references from the Arbitrator or the Deputy Arbitrators may be made to the Australian Conciliation and Arbitration Commission.

The Flight Crew Officers' Industrial Tribunal is empowered to prevent or settle industrial disputes involving pilots, navigators and flight engineers of aircraft. The tribunal was established under provisions of the Conciliation and Arbitration Act in February 1968.

The Coal Industry Tribunal was established under the *Australian Coal Industry Act 1946* and the New South Wales Coal Industry Act, 1946 and is empowered to consider interstate disputes and New South Wales disputes in the coal mining industry.

State industrial tribunals

New South Wales. The principal authority is the Industrial Commission of New South Wales, which consists of a President and not more than seven other Judges. Subsidiary tribunals are Conciliation Commissioners and Conciliation Committees constituted for particular industries. Each Conciliation Committee consists of a Conciliation Commissioner as chairman and an equal number of representatives of employers and employees. Special Commissioners may be appointed. Wages, salaries and conditions of employment of State Government employees are regulated by determinations made by, or industrial agreements registered with, the Public Service Board of New South Wales.

Victoria. The authorities are separate Wages Boards for the occupations and industries covered, each consisting of a chairman and an equal number of representatives of employers and employees, and the Industrial Appeals Court presided over by a judge of the County Court. The conditions of employment of State Government employees are regulated by determinations or regulations of the Public Service Board, the Police Service Board and the Teachers Tribunal.

Queensland. The authorities consist of the Industrial Court of Queensland, which deals with the legal aspects of the system, and the Industrial Conciliation and Arbitration Commission of Queensland, which deals with conciliation and arbitration functions. The President of the Industrial Court is a Judge of the Supreme Court of Queensland. Not more than five Commissioners may be appointed to the Commission. The Commission is constituted by a Commissioner sitting alone or in the case of a Full Bench of the Commission by at least three Commissioners. The conditions of employment of State Government employees are regulated by awards, etc. of the Commission.

South Australia. The system of control consists of an Industrial Commission, an Industrial Court and Conciliation Committees. The Commission is composed of a President, two Deputy Presidents and Commissioners. The Commissioners are chairmen of Conciliation Committees consisting of an equal number of representatives of employers and employees. The Commission and Conciliation Committees make awards. The President and Deputy Presidents of the Commission are the President and Deputy Presidents, respectively, of the Industrial Court which deals with legal matters and workmen's compensation.

Rates of pay and other conditions of employment of State Government employees are determined by the Public Service Arbitrator and the Teachers Salaries Board.

Western Australia. The principal authorities comprise the Western Australian Industrial Commission consisting of six Commissioners and the Western Australian Industrial Appeal Court consisting of three Supreme Court Judges. Awards may be made by a single Commissioner or by the Commission in Court Session consisting of three Commissioners. Appeals and references from single Commissioners are heard by the Commission in Court Session. Appeals from the Commission to the Industrial Appeal Court are limited to matters of law or jurisdiction. The Western Australian Coal Industry Tribunal, consisting of a chairman and two representatives each of employers and employees, has power to determine industrial matters in the coal mining industry. Decisions of the Tribunal may be reviewed by the Commission in Court Session. Wages and other conditions of employment of State Government employees are regulated by the Public Service Arbitrator, the Railways Classification Board and by determinations made under the Education Act, including determinations of the Government School Teachers Tribunal.

Tasmania. The authorities are Wages Boards for separate industries, comprising a chairman (or deputy chairman) and an equal number of representatives of employers and employees. The Public Service Board and the Public Service Arbitrator regulate the wages and conditions of employment of State Government employees.

Rates of wage and hours of work

This section contains indexes (with base: year 1954 = 100.0) of minimum weekly and hourly rates of wage and standard hours of work for adult males and adult females for Australia and each State. In the indexes there are fifteen industry groups for adult males and eight industry groups for adult females. For relevant periods these indexes replace cognate indexes (base: year 1911 = 1,000 for males and April 1914 = 1,000 for females) published in Year Books before No. 46, 1960. The current indexes are based on the occupation structure existing in 1954. Weights for each industry and each occupation were derived from two sample surveys made in that year. The first was the Survey of Awards in April 1954 which showed the number of employees covered by individual awards, determinations and collective agreements. This provided employee weights for each industry as well as a basis for the Survey of Award Occupations made in November 1954. This second survey showed the number of employees in each occupation within selected awards, etc. thereby providing occupation weights.

The industrial classification used in the current indexes, shown in the table on page 264, does not differ basically from the previous classification, the alterations being largely in the arrangement of classes. The former Pastoral, agricultural, etc. group and the domestic part of the Amusement, hotels, personal service, etc. group are excluded from the current indexes because of coverage difficulties.

The minimum wage rates and standard hours of work used in the current indexes are for representative occupations within each industry. They have been derived entirely from representative awards, determinations and collective agreements in force at the end of each month or quarter, commencing with March 1939 for adult males and March 1951 for adult females. Particulars have been available as at the end of each month for adult males from January 1957 and for adult females from July 1967. The index for adult males includes rates and hours for 3,415 award designations. However, as some of these designations are operative within more than one industry, or in more than one State, the total number of individual award occupations is 2,313. For adult females the corresponding numbers are 1,100 and 515. Using the industry and the occupation weights derived from the surveys described above, these rates and hours were combined to give weighted averages for each industry group for each State and Australia.

Because the indexes are designed to measure movements in prescribed minimum rates of 'wages' as distinct from 'salaries', those awards, etc. which relate solely or mainly to salary earners are excluded.

A more detailed description of the current indexes of minimum rates of wage and standard hours of work is given in the *Labour Report*, which also contains an extensive tabular presentation of the minimum rates of pay for adult males and females in the principal occupations in the capital city of each State. Further particulars of wage rates and index numbers will be found in mimeographed bulletins *Minimum Wage Rates*, March 1939 to June 1965, *Wage Rates Indexes*, June 1965 to June 1968 and *Wage Rates Indexes*, June 1968 to June 1972. Current figures are published in the monthly bulletins *Wage Rates and Earnings* and *Wage Rates Indexes (Preliminary Statement)*.

Weekly wage rates—adult males

The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult male workers for a full week's work and index numbers at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, ALL GROUPS(a)								
WEIGHTED AVERAGE MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES								
End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.	
RATES OF WAGE(c)								
(\$)								
1950	20.62	20.18	19.52	19.79	20.06	19.80	20.20	
1960	36.28	34.99	35.07	34.22	35.81	35.15	35.50	
1970	54.40	53.68	55.07	52.12	55.99	54.49	54.20	
1972	68.11	67.86	68.42	65.82	66.15	67.18	67.71	
1973p	78.07	77.39	79.81	75.20	75.66	76.63	77.65	
INDEX NUMBERS								
(Base: Weighted Average Weekly Wage Rate for Australia, Year 1954 = 100)								
1950	73.0	71.4	69.1	70.1	71.0	70.1	71.5	
1960	128.5	123.9	124.2	121.2	126.8	124.5	125.7	
1970	192.6	190.1	195.0	184.6	198.2	192.9	191.9	
1972	241.2	240.3	242.3	233.1	234.2	237.9	239.8	
1973p	276.4	274.0	282.6	266.3	267.9	271.3	274.9	

(a) Excludes rural industry. (b) As prescribed in awards, determinations and collective agreements. (c) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows for Australia the weighted average minimum weekly rates of wage and index numbers in each industry group and for all groups (excluding rural industry) at the dates specified.

WEEKLY WAGE RATES: ADULT MALES, INDUSTRY GROUPS, AUSTRALIA
WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Industry Group	<i>End of December—</i>				
	1950	1960	1970	1972	1973p
RATES OF WAGE(b)					
(\$)					
Mining and quarrying(c)	25.96	41.47	60.83	73.30	82.16
Manufacturing—					
Engineering, metals, vehicles, etc.	20.17	35.02	51.88	65.25	73.35
Textiles, clothing and footwear	19.74	34.04	50.92	62.94	72.76
Food, drink and tobacco	20.14	35.22	52.98	64.67	76.38
Sawmilling, furniture, etc.	19.60	34.62	51.84	62.52	72.60
Paper, printing, etc.	21.42	37.92	57.47	71.93	82.36
Other manufacturing	19.76	34.72	52.34	65.81	76.19
<i>All manufacturing groups</i>	20.08	35.05	52.36	65.27	74.71
Building and construction	19.86	35.75	56.67	70.03	79.29
Railway services	19.58	34.65	51.32	64.03	71.77
Road and air transport	19.79	35.25	54.65	67.97	77.25
Shipping and stevedoring(d)	19.66	34.46	60.54	84.41	93.39
Communication	21.33	38.49	68.95	86.72	102.57
Wholesale and retail trade	20.08	35.71	53.82	67.52	78.76
Public authority (n.e.i.) and community and business services	19.21	34.81	54.11	67.87	81.47
Amusement, hotels, personal service, etc.	19.23	33.73	49.16	60.62	72.34
<i>All industry groups(e)</i>	20.20	35.50	54.20	67.71	77.65
INDEX NUMBERS					
(Base: Weighted Average Weekly Wage Rate for Australia, Year 1954 = 100)					
Mining and quarrying(c)	91.9	146.8	215.4	259.5	290.9
Manufacturing—					
Engineering, metals, vehicles, etc.	71.4	124.0	183.7	231.0	259.7
Textiles, clothing and footwear	69.9	120.5	180.3	222.8	257.6
Food, drink and tobacco	71.3	124.7	187.6	229.0	270.5
Sawmilling, furniture, etc.	69.4	122.6	183.6	221.4	257.1
Paper, printing, etc.	75.9	134.3	203.5	254.7	291.6
Other manufacturing	70.0	122.9	185.3	233.0	269.8
<i>All manufacturing groups</i>	71.1	124.1	185.4	231.1	264.6
Building and construction	70.3	126.6	200.7	248.0	280.7
Railway services	69.3	122.7	181.7	226.7	254.1
Road and air transport	70.1	124.8	193.5	240.7	273.5
Shipping and stevedoring(d)	69.6	122.0	214.3	298.9	332.5
Communication	75.5	136.3	244.1	307.1	363.2
Wholesale and retail trade	71.1	126.4	190.6	239.1	278.9
Public authority (n.e.i.) and community and business services	68.0	123.2	191.6	240.3	288.5
Amusement, hotels, personal service, etc.	68.1	119.4	174.1	214.6	256.1
<i>All industry groups(e)</i>	71.5	125.7	191.9	239.8	274.9

(a) As prescribed in awards, determinations and collective agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (c) For mining, rates of wage used are those prescribed for the principal mining centres and include lead bonuses, etc. (d) Includes rates of wage (and value of keep) for occupations in the coastal shipping service, other than masters, officers and engineers (e) Excludes rural industry.

Adult males—jurisdiction. Weighted average minimum weekly wage rates for adult males covered by *Federal awards*, etc. and for those covered by *State awards*, etc. (as defined below) are shown separately in the following table. For the purposes of the index, *Federal awards*, etc. include awards of, or collective agreements registered with, the Australian Conciliation and Arbitration Commission, and determinations of the Australian Public Service Arbitrator. *State awards*, etc. include awards or determinations of, or collective agreements registered with, State industrial tribunals, together with certain unregistered collective agreements when these are dominant in the particular industries to which they refer.

WEEKLY WAGE RATES: ADULT MALES, ALL GROUPS^(a)

(\$)

WEIGHTED AVERAGE MINIMUM WEEKLY RATES^(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AS PRESCRIBED IN AWARDS, DETERMINATIONS AND COLLECTIVE AGREEMENTS

Jurisdiction	End of December				
	1950	1960	1970	1972	1973p
Federal awards, etc. ^(c)	20.18	35.14	53.77	68.03	77.26
State awards, etc. ^(c)	20.23	35.88	54.65	67.37	78.06
All awards, etc.	20.20	35.50	54.20	67.71	77.65

(a) Excludes rural industry. (b) The amounts should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. For definitions see text above. (c) The wage rates for these two categories may change at any time as a result of the transfer of particular awards or occupations from one jurisdiction to another.

Weekly wage rates—adult females

The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult female workers for a full week's work and index numbers at the dates specified. This series has not been compiled for years prior to 1951.

WEEKLY WAGE RATES: ADULT FEMALES, ALL GROUPS^(a)WEIGHTED AVERAGE MINIMUM WEEKLY WAGE RATES^(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE ^(c) (\$)							
1951	17.23	17.22	16.12	17.02	16.25	16.56	17.03
1960	26.12	24.66	23.93	24.29	25.12	23.88	25.17
1970	40.68	38.65	40.60	37.51	40.02	38.17	39.68
1972	53.18	51.10	52.27	50.50	51.80	49.07	52.04
1973p	67.99	62.70	63.93	62.03	63.50	60.86	64.99

INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, Year 1954 = 100)

1951	86.6	86.5	81.0	85.5	81.6	83.2	85.6
1960	131.2	123.9	120.2	122.0	126.2	120.0	126.4
1970	204.3	194.2	203.9	188.4	201.0	191.7	199.3
1972	267.1	256.7	262.5	253.7	260.2	246.5	261.4
1973p	341.5	315.0	321.1	311.6	319.0	305.7	326.5

(a) Excludes rural industry; mining and quarrying; and building and construction. (b) As prescribed in awards, determinations and collective agreements. (c) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows for Australia weighted average minimum weekly rates of wage and index numbers in each of the industry groups in which the number of females employed is important, and the weighted average for all groups combined, at the dates specified.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRY GROUPS, AUSTRALIA

WEIGHTED AVERAGE MINIMUM WEEKLY RATES^(a) PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Industry Group	End of December—				
	1951	1960	1970	1972	1973 ^p
RATES OF WAGE^(b) (\$)					
Manufacturing—					
Engineering, metals, vehicles, etc.	17.09	24.98	40.24	55.66	65.63
Textiles, clothing and footwear	17.12	24.07	36.59	46.66	58.97
Food, drink and tobacco	16.58	24.63	38.22	48.45	62.06
Other manufacturing	16.88	24.80	37.79	50.65	61.83
<i>All manufacturing groups</i>	<i>16.99</i>	<i>24.46</i>	<i>37.72</i>	<i>49.36</i>	<i>61.19</i>
Transport and communication	17.75	26.02	44.19	58.35	74.17
Wholesale and retail trade	17.11	26.36	42.12	54.66	68.31
Public authority (n.e.i.) and community business services	17.01	25.78	41.92	56.41	71.78
Amusement, hotels, personal service, etc.	16.68	24.50	37.97	50.10	62.54
All industry groups^(c)	17.03	25.17	39.68	52.04	64.99

INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, Year 1954 = 100)

Manufacturing—					
Engineering, metals, vehicles, etc.	85.9	125.5	202.1	279.6	329.7
Textiles, clothing and footwear	86.0	120.9	183.8	234.4	296.2
Food, drink and tobacco	83.3	123.7	192.0	243.4	311.7
Other manufacturing	84.8	124.6	189.8	254.4	310.6
<i>All manufacturing groups</i>	<i>85.4</i>	<i>122.9</i>	<i>189.5</i>	<i>247.9</i>	<i>307.3</i>
Transport and communication	89.2	130.7	222.0	293.1	372.5
Wholesale and retail trade	85.9	132.4	211.6	274.6	343.1
Public authority (n.e.i.) and community and business services	85.4	129.5	210.6	283.4	360.6
Amusement, hotels, personal service, etc.	83.8	123.1	190.7	251.7	314.1
All industry groups^(c)	85.6	126.4	199.3	261.4	326.5

(a) As prescribed in awards, determinations and collective agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (c) Excludes rural industry; mining and quarrying; and building and construction.

Adult females—jurisdiction. Weighted average minimum weekly wage rates for adult females covered by *Federal awards, etc.* and for those covered by *State awards, etc.* (as defined below) are shown separately in the following table. For the purposes of this index, *Federal awards etc.* include awards of, or collective agreements registered with, the Australian Conciliation and Arbitration Commission, and determinations of the Australian Public Service Arbitrator. *State awards etc.* include awards or determinations of, or collective agreements registered with, State industrial tribunals, together with certain unregistered collective agreements when these are dominant in the particular industries to which they refer.

WEEKLY WAGE RATES: ADULT FEMALES, ALL GROUPS(a)

(\$)

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AS PRESCRIBED IN AWARDS, DETERMINATIONS AND COLLECTIVE AGREEMENTS

Jurisdiction	End of December—				
	1965	1970	1971	1972	1973p
Federal awards, etc.(c)	27.79	37.91	45.47	50.30	62.54
State awards, etc.(c)	30.20	41.16	48.42	53.52	67.07
All awards, etc.	29.10	39.68	47.06	52.04	64.99

(a) Excludes rural industry; mining and quarrying; and building and construction. (b) The amounts should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. For definitions see text above. (c) The wage rates for these two categories may change at any time as a result of the transfer of particular awards or occupations from one jurisdiction to another.

Standard hours of work

In the fixation of weekly wage rates most industrial tribunals prescribe the number of hours constituting a full week's work (excluding overtime) for the wage rates specified. The hours of work so prescribed form the basis of the compilation of the weighted averages and index numbers shown below. The main features of the reduction of hours to forty-four and later to forty per week are summarised in previous issues of the Year Book. Since January 1948 practically all employees in Australia have had a standard working week of forty hours or less.

Hourly wage rates

The average rates of wage in the preceding tables are based on the minimum rates prescribed for selected occupations in awards, etc. for a full week's work, excluding overtime. However, the number of hours constituting a full week's work differs in some instances between the various occupations in each State, and between the same occupations in the several States. For some purposes a better comparison may be obtained by reducing the results in the preceding paragraphs to a common basis, namely the rate of wage per hour. The particulars of weighted average minimum hourly rates of wage given in the following tables relate to all industry groups except rural industry, and shipping and stevedoring. The rural industry is not included in the index, and shipping and stevedoring has been excluded because, for some of the occupations in this group, definite particulars for the computation of average working hours and hourly rates of wage are not available.

The following table shows the weighted average minimum hourly rates of wage payable to adult male workers and index numbers of hourly rates in each State.

HOURLY WAGE RATES: ADULT MALES, ALL GROUPS(a)

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE(b)							
(cents)							
1950	51.63	50.48	48.83	49.53	50.29	49.52	50.58
1960	90.91	87.57	87.79	85.61	89.89	88.08	88.92
1970	136.08	133.91	137.49	129.74	140.09	135.50	135.35
1972	170.03	168.82	170.64	163.50	164.47	165.91	168.67
1973p	195.14	192.72	199.39	187.05	188.39	186.65	193.67

INDEX NUMBERS

(Base: Weighted Average Hourly Wage Rate for Australia, Year 1954 = 100.0)

1950	73.0	71.4	69.0	70.0	71.7	70.0	71.5
1960	128.5	123.8	124.1	121.0	127.1	124.5	125.7
1970	192.3	189.3	194.3	183.4	198.0	191.5	191.3
1972	240.3	238.6	241.2	231.1	232.5	234.5	238.4
1973p	275.8	272.4	281.8	264.4	266.3	268.1	273.7

(a) Excludes rural industry, and shipping and stevedoring. See text above. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows the weighted average minimum hourly rates of wage payable to adult female workers and index numbers of hourly rates in each State.

HOURLY WAGE RATES: ADULT FEMALES, ALL GROUPS(a)
WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

<i>End of December—</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>
RATES OF WAGE(b) (cents)							
1951 . . .	43.58	43.25	40.60	42.81	40.85	41.86	42.92
1960 . . .	66.09	61.94	60.28	61.08	63.14	60.37	63.44
1970 . . .	102.92	97.10	102.26	94.32	100.59	96.32	100.03
1972 . . .	134.54	128.37	131.66	127.00	130.20	123.85	131.18
1973p . . .	172.02	157.52	161.03	155.99	159.61	153.60	163.83
INDEX NUMBERS (Base: Weighted Average Hourly Wage Rate for Australia, Year 1954 = 100.0)							
1951 . . .	86.9	86.2	80.9	85.3	81.4	83.4	85.6
1960 . . .	131.7	123.5	120.1	121.7	125.8	120.3	126.4
1970 . . .	205.1	193.5	203.8	188.0	200.5	192.0	199.4
1972 . . .	268.2	255.9	262.4	253.1	259.5	246.9	261.5
1973p . . .	342.9	314.0	321.0	310.9	318.1	306.2	326.5

(a) Excludes rural industry; mining and quarrying; and building and construction. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

Weighted average standard weekly hours of work

The 40-hour week has operated in Australia generally from 1 January 1948. However, as stated on page 267, the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or between States. The weighted average standard hours of work (excluding overtime) prescribed in awards, determinations and collective agreements for a full working week, in respect of adult male workers in all industry groups except rural industry, and shipping and stevedoring, at 31 December 1973, were: New South Wales, 39.77; Victoria, 39.96; Queensland, 39.88; South Australia, 39.95; Western Australia, 39.83; Tasmania, 39.91; Australia, 39.86. Corresponding figures for adult female workers at 31 December 1973 were: New South Wales, 39.53; Victoria, 39.81; Queensland, 39.70; South Australia, 39.77; Western Australia, 39.78; Tasmania, 39.63; Australia, 39.67.

Average Weekly Earnings

The figures in this section are derived from particulars of employment and wages and salaries recorded on payroll tax returns, from other direct collections and from estimates of the unrecorded balance. The figures relate to civilians only. In addition to salary and wage payments at award rates, the total earnings figures used in the calculation of average weekly earnings include the earnings of employees not covered by awards, overtime earnings, over-award and bonus payments, payments made in advance or retrospectively during the period, etc.

Particulars of wages and salaries paid are not available for males and females separately from the sources used for this series; average weekly earnings have therefore been calculated in terms of *male units*, i.e. total male employees plus a proportion of female employees, the proportion being derived from the estimated ratios of female to male average earnings. Different ratios of female to male average earnings, based on information from the annual surveys of weekly earnings and hours, from a sample survey carried out in November 1969 and from other sources, are used for individual States. Ratios used for the June 1974 quarter are as follows: New South Wales 62 per cent, Victoria 62, Queensland 58, South Australia 56, Western Australia 55 and Tasmania 60. As the number of male units used in calculating Australian average weekly earnings is the sum of the estimates for the States, a separate ratio for Australia is not used, but the weighted average of the State ratios is approximately 60.0 per cent. Changes in these ratios may be necessary from one quarter to the next to reflect, for example, the extension of equal pay provisions, or appreciable and sustained changes in the levels of male overtime earnings. However, small differences in these ratios have relatively little effect on the earnings figures: if the ratio is understated by one per cent, then average weekly earnings of \$140 would be overstated by about 60 cents.

Annual averages for each State and Australia for the years 1966-67 to 1973-74 are shown in the table below.

AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT(a)
(\\$)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(b)
1966-67 . . .	63.30	64.10	57.30	57.30	59.40	58.50	61.90
1967-68 . . .	66.70	67.80	60.30	60.60	64.10	62.00	65.50
1968-69 . . .	72.30	72.40	64.50	64.80	69.00	65.70	70.40
1969-70 . . .	78.50	78.40	69.40	70.30	75.70	70.90	76.30
1970-71 . . .	87.30	86.40	78.00	77.20	84.90	78.50	84.80
1971-72 . . .	95.90	93.60	87.00	85.30	93.70	86.80	93.00
1972-73 . . .	104.30	102.50	97.00	93.00	99.00	94.40	101.50
1973-74 . . .	120.80	118.40	112.60	110.80	115.40	110.30	118.00

(a) See explanatory notes above. (b) Includes the Northern Territory and the Australian Capital Territory.

Because of the adoption of a new definition of the labour force at June 1966 population census, there is a break in comparability between June and September quarters of 1966 in the employment series used in the calculation of average weekly earnings. For this and other reasons (in particular, the lack of precise information about the ratios of female to male earnings in the several States for 1965-66 and earlier years), it is not possible to make a comparable series of State estimates for periods prior to September quarter 1966. However, in order to provide a broad indication of trends over a longer period, estimates for Australia as a whole have been calculated for the period back to September quarter 1961 by methods and on a basis that are as nearly as possible comparable with those used for the current series. Annual averages for this period are: 1961-62, \$47.70; 1962-63, \$49.00; 1963-64, \$51.60; 1964-65, \$55.50; 1965-66, \$58.00.

For current statistics in this series reference should be made to the quarterly publication *Average Weekly Earnings* (6.18).

Surveys of wage rates, earnings and hours, 1960 to 1973

Since 1960 a number of statistical surveys have been undertaken by this Bureau in order to obtain information on wage rates, actual weekly earnings and hours of work in Australia. Particulars of the scope and coverage of the surveys from 1960 to 1971 were shown in earlier issues of the Year Book. Details concerning the 1972 and 1973 surveys are shown on pages 272-4.

Survey of wage rates and earnings, September 1960

For information on the results of this survey see Year Book No. 51, pages 439-42.

Survey of weekly earnings, October 1961

The results of this survey were published in Year Book No. 51, pages 442-4.

Surveys of weekly earnings and hours, October 1962 to 1971 (excluding October 1965)

Details of these surveys were published in earlier issues of the Year Book. For a summary of the results for October 1969, 1970 and 1971 see Year Book No. 59, pages 259-65.

Survey of weekly earnings, October 1965

A survey of weekly earnings of male employees was conducted for the last pay-period in October 1965. Results of this survey, which covered the distribution and composition of weekly earnings, were published in detail in *Labour Report* No. 52, 1965 and 1966.

Survey of weekly earnings (size distribution), May 1971

A survey of weekly earnings of adult male employees was conducted for the pay-period which included 12 May 1971. The object of the survey was to obtain estimates of the numbers and proportions of full-time adult male employees (paid for a full week) in various total weekly earnings groups, average weekly total earnings for these employees, and a dissection of average weekly total earnings into average weekly overtime earnings and average weekly ordinary time earnings. The survey was conducted by means of stratified random samples of (i) private employers subject to payroll tax (that is those, other than exempt employers, paying more than \$400 a week in wages and salaries),

(ii) public hospitals, and (iii) local government authorities; and in addition a complete coverage of (iv) Commonwealth and State government departments, government authorities and semi-government bodies. Excluded were employees of private employers not subject to payroll tax; employees in rural industry and private domestic service; employees of religious, benevolent and other similar organisations exempt from payroll tax (other than public hospitals and government institutions); and waterside workers employed on a casual basis. Detailed results of the survey were published in *Labour Report* No. 56, 1971.

Surveys of weekly earnings and hours, October 1972 and 1973

Sample surveys conducted before 1972 (see page 269) covered most private employers subject to payroll tax (i.e. those paying more than \$400 a week in wages and salaries) in the six States. The October 1972 survey included for the first time: (i) private employees in the Northern Territory and the Australian Capital Territory, (ii) employees in non-government hospitals not subject to payroll tax and (iii) employees of Australian, State and local government authorities.

Results of the 1972 survey for private employees were published in the bulletin *Survey of Weekly Earnings and Hours* (6.1) and in the *Labour Report*.

Some results of the 1972 and 1973 surveys for total (private and government) employees are contained in the tables on pages 272-4. Further particulars, including averages for each State, separate details for private and government employees, and some details for the Territories were published in the bulletin *Survey of Weekly Earnings and Hours—October 1972 (Private and Government Employees)* (6.40). Preliminary results of the surveys are published in the bulletin *Survey of Weekly Earnings and Hours (Preliminary Statement)* (6.36) as soon as returns from a large percentage of respondents have been processed.

Coverage of Surveys

The estimates in the following tables are based on returns from stratified random samples of (i) most private employers subject to payroll tax (i.e. those, other than exempt employers, paying more than \$400 a week in wages and salaries), (ii) non-government hospitals not subject to payroll tax and (iii) local government authorities; and from all Australian and State government departments, authorities and semi-government bodies. The estimates for *private employees* refer to persons employed by employers in categories (i) and (ii). The estimates for *government employees* refer to all other employees covered by the survey. Excluded from the survey were employees of private employers not subject to payroll tax; employees in rural industry and private domestic service; employees of religious, benevolent and other similar organisations exempt from payroll tax (other than hospitals and government authorities); and waterside workers employed on a casual basis.

Although the sample was not designed to provide estimates of the numbers of employees represented, it has been calculated that the 1973 survey was representative of approximately 2,733,000 male and 1,305,000 female wage and salary earners, comprising 1,877,000 males and 1,010,000 females in private employment and 856,000 males and 295,000 females in government employment.

As parts of the survey were conducted from samples of employers (see above) the resultant estimates are subject to sampling variability, that is, variations which might occur by chance because only samples of employers were surveyed. The extent of the detail published has been determined after considering estimated measures of sampling variability. A technical note on sampling variability is included in the bulletin *Survey of Weekly Earnings and Hours (Private and Government) Employees* (6.40).

Comparability of results

In addition to affecting the results of each sample survey, sampling variability also affects comparison between the results of the different surveys.

The industry classification adopted for these earnings and hours surveys from 1963 onwards (including the 1965 survey) is that used for the 1961 and 1966 population censuses.

The October 1965 Survey of Weekly Earnings was a special purpose survey on a different basis from the surveys compared in this section (see page 269).

The allocation of employees between 'Managerial, executive, professional and higher supervisory staff' and 'All other full-time employees' (as defined) depends upon the employers' interpretation of the definitions (see page 271).

Results for private employees published in the bulletins (6.40) are not directly comparable with the results for private employees published in *Survey of Weekly Earnings and Hours*, October 1972 (6.1) and earlier bulletins because the earlier bulletins *excluded* details for private employees in the Northern Territory and the Australian Capital Territory and for employees in non-government hospitals not subject to payroll tax. In addition, the industry dissection shown in the following tables is somewhat more detailed than that shown in the bulletins (6.1) and earlier issues of the Year

Book. Separate particulars are now shown for *Electricity, gas, water and sanitary services* and for *Public authority activities (n.e.i.) and community and business services*. Other industries therefore now comprises only *Amusement, hotels, cafés, personal service, etc.*; and *forestry, fishing and trapping*.

The estimates shown in the following tables reflect the effect of the differences—between States, between industries and between government and private employment—in (i) the amounts earned and the hours worked for the same occupations, (ii) the occupational structures within industries, (iii) the industry structure, (iv) the definitions and reporting of managerial, etc. staff and non-managerial employees (see definitions below), (v) the level of business activity including the incidence of overtime, etc., (vi) the incidence of incentive, piece-work and profit-sharing scheme payments, and (vii) the degree of implementation of equal pay for the sexes, etc.

Definitions

The following definitions refer to terms used in the surveys and in the tables in this section.

Employees refers to male and female employees on the payroll and who received pay for the last pay-period in October.

Private employees are employees of private employers subject to payroll tax and employees of non-government hospitals not subject to payroll tax.

Government employees are civilian employees of Australian and State government departments, authorities and semi-government bodies, and of local government authorities.

Adults includes all employees 21 years of age and over and those employees who, although under 21 years of age, are paid at the adult rate for their occupation.

Juniors refers to those employees under 21 years of age who are not paid at the adult rate for their occupation.

Full-time employees refers to those employees who ordinarily work 30 hours or more a week and who received pay for the last pay-period in October. Included are 'full-time' employees on short-time; 'full-time' employees who began or ceased work during the pay-period; and 'full-time' employees on paid annual leave, paid sick leave, long service leave and paid holidays taken during the pay-period.

Part-time employees refers to employees who ordinarily work less than 30 hours a week and who received pay for the last pay-period in October. Employees on short-time who normally work 30 hours or more a week are classified as full-time employees.

For *private employees, Other than managerial, etc. staff* were defined to include minor supervisory employees, leading hands, clerical and office staff as well as ordinary wages employees. They exclude *managerial, executive, professional and higher supervisory staff* who, for private employees, were not further defined. For *government employees, managerial, executive, professional and higher supervisory staff* were generally defined as those employees (i) who were ineligible to receive payment for overtime, or (ii) who, although subject to payment for overtime, were in charge of a significant number of employees in a separate establishment (or establishments). For some occupations in government employment, such as school teachers and doctors, there is no general payment for overtime. In these cases, managerial, etc. staff were determined according to the degree of supervision exercised or in relation to the pay structure of associated administrative employees.

Weekly earnings refers to gross earnings for the last pay-period in October before taxation and other deductions have been made. It includes ordinary time earnings, overtime earnings, shift allowances, penalty rates, commission and similar payments; and that part of paid annual leave, paid sick leave, long service leave and paid holidays taken during the pay-period. It includes one week's proportion of payments made other than on a weekly basis, e.g. salary paid fortnightly or monthly; paid annual or other leave taken during the pay-period; periodical payments under incentive, piecework, profit sharing schemes, etc.; commissions; annual or periodical bonuses, etc. Retrospective payments are excluded.

Overtime earnings refers to that part of gross weekly earnings (as defined above) for hours paid for in excess of award, standard or agreed hours of work. Overtime earnings were not reported for managerial, etc. staff.

Ordinary time earnings refers to that part of gross weekly earnings (as defined above) for award, standard or agreed hours of work. It includes shift allowances, penalty rates, commissions, bonuses and incentive payments, and that part of paid annual and other leave, which relates to these hours.

Weekly man-hours paid for refers to the sum of man-hours for which payment was made. It includes ordinary time hours, overtime hours, paid stand-by or reporting time; and that part of paid annual leave, paid sick leave, long service leave and paid holidays taken during the specified

pay-period. For employees paid other than weekly, hours are converted to a weekly basis. For employees who began or ceased work, or were absent without pay for any reason during the specified week, only the man-hours actually paid for are included. Where agreed hours of work are less than award hours, man-hours are based on agreed hours. Hours of work were not reported for managerial, etc. staff.

Overtime hours refers to hours in excess of award, standard or agreed hours of work.

Ordinary time hours refers to award, standard or agreed hours of work. It includes man-hours of stand-by or reporting time which are part of standard hours of work, and that part of paid annual leave, paid sick leave and long service leave taken during the specified week.

In the following tables the estimates of average weekly earnings are rounded to the nearest ten cents, estimates of average weekly hours paid for are rounded to the first decimal place, and estimates of average hourly earnings are rounded to the nearest cent.

AVERAGE WEEKLY EARNINGS AND HOURS (OVERTIME AND ORDINARY TIME)(a), FULL-TIME EMPLOYEES OTHER THAN MANAGERIAL, ETC STAFF(b): INDUSTRY GROUPS AUSTRALIA, OCTOBER 1973(c)

Industry group	Average weekly earnings (\$)			Average weekly hours paid for			Average weekly earnings (\$)			Average weekly hours paid for		
	Over-time earnings	Ordinary time earnings	Total	Over-time hours	Ordinary time hours	Total	Over-time earnings	Ordinary time earnings	Total	Over-time hours	Ordinary time hours	Total
ADULT MALES												
JUNIOR MALES												
Manufacturing—												
Extracting, refining and founding of metals . . .	24.30	99.60	124.00	7.0	37.9	44.8	6.50	61.20	67.70	2.6	36.2	38.8
Engineering and metal-working . . .	21.20	91.20	112.40	5.9	38.0	43.9	5.60	52.10	57.70	2.6	38.5	41.1
Ships, vehicles, parts and accessories . . .	16.90	95.30	112.30	4.5	38.2	42.7	4.10	51.40	55.50	1.9	38.2	40.1
<i>Founding, engineering, vehicles, etc.</i> . . .	20.30	93.80	114.10	5.6	38.0	43.6	5.20	53.30	58.60	2.3	38.0	40.3
Textiles, clothing and footwear . . .	19.40	88.20	107.60	5.9	38.3	44.1	6.00	48.20	54.10	3.1	38.0	41.1
Food, drink and tobacco . . .	19.10	87.50	106.60	5.3	38.2	43.6	7.30	51.50	58.80	3.2	38.0	41.3
Paper, printing, book-binding and photography . . .	16.00	103.50	119.50	4.0	38.7	42.8	5.50	54.20	59.80	2.4	39.0	41.4
Chemicals, dyes, explosives, paints, non-mineral oils . . .	15.70	103.00	118.70	4.0	38.1	42.1	3.90	58.50	62.40	1.7	38.3	40.0
Other . . .	21.10	89.90	110.90	6.0	38.2	44.2	5.10	47.00	52.00	2.6	38.1	40.7
<i>Manufacturing groups</i> . . .	19.60	93.10	112.70	5.4	38.2	43.6	5.50	51.90	57.40	2.5	38.1	40.6
Non-manufacturing—												
Mining and quarrying . . .	30.50	113.60	144.10	7.7	36.1	43.9	14.00	65.30	79.30	4.9	37.6	42.5
Electricity, gas, water and sanitary services . . .	8.60	109.70	118.30	2.1	38.6	40.7	1.40	64.80	66.20	0.5	39.0	39.6
Building and construction . . .	15.50	97.40	112.90	3.9	38.4	42.4	3.10	56.10	59.10	1.3	39.0	40.4
Transport, storage and communication . . .	19.80	105.30	125.10	4.7	38.6	43.3	6.60	54.70	61.20	2.7	38.8	41.5
Finance and property . . .	3.90	113.60	117.40	1.0	38.6	39.5	1.30	62.10	63.40	0.5	38.7	39.2
Wholesale trade, primary produce dealing etc. . .	9.90	94.70	104.60	2.8	38.8	41.7	3.60	49.10	52.60	1.8	38.5	40.3
Retail trade . . .	8.30	87.60	95.90	2.5	39.3	41.8	3.50	47.30	50.90	1.8	39.2	41.0
Public authority and community, etc. services (d) . . .	5.40	118.50	123.90	1.3	37.7	39.0	1.30	61.40	62.70	0.5	37.3	37.8
Other industries(e) . . .	10.70	90.40	101.10	3.1	38.7	41.8	6.70	52.50	59.20	3.3	38.9	42.1
<i>Non-manufacturing groups</i> . . .	12.10	104.40	116.50	3.1	38.3	41.4	3.40	55.20	58.70	1.5	38.6	40.1
All industry groups . . .	15.00	100.10	115.10	4.0	38.3	42.3	4.20	54.00	58.20	1.9	38.4	40.3
ADULT FEMALES												
JUNIOR FEMALES												
Manufacturing groups . . .	5.70	65.80	71.40	2.2	37.7	39.8	1.90	43.70	45.60	1.1	37.9	39.0
Non-manufacturing groups . . .	2.50	83.40	86.00	0.8	37.8	38.6	1.20	49.80	50.90	0.6	38.5	39.1
All industry groups . . .	3.60	77.40	81.00	1.3	37.7	39.0	1.30	48.80	50.10	0.7	38.4	39.1

(a) Averages for all employees represented in the survey. See page 270. (b) Total (private and government) employees. (c) Last pay-period in October. For definitions and particulars of scope of the survey, etc., see pages 270-2. (d) Public authority activity (n.e.i.) and community and business services. (e) Includes amusement, hotels, cafés, personal service, etc.; and forestry, fishing and trapping.

AVERAGE WEEKLY EARNINGS, FULL-TIME EMPLOYEES OTHER THAN MANAGERIAL ETC. STAFF(a): INDUSTRY GROUPS, AUSTRALIA, OCTOBER 1972 AND 1973(b)

(\\$)

Industry group	Adult males		Junior males		Adult females		Junior females	
	October 1972	October 1973	October 1972	October 1973	October 1972	October 1973	October 1972	October 1973
Manufacturing—								
Extracting, refining and founding of metals	103.80	124.00	53.20	67.70	65.50	78.20	44.30	52.20
Engineering and metal-working	96.20	112.40	46.10	57.70	64.20	74.90	42.30	49.60
Ships, vehicles, parts and accessories	91.60	112.30	44.20	55.50	66.20	81.10	45.00	54.70
<i>Founding, engineering, vehicles, etc.</i>	95.90	114.10	46.50	58.60	64.60	76.40	43.00	50.80
Textiles, clothing and footwear	89.00	107.60	44.40	54.10	53.90	66.10	33.30	41.40
Food, drink and tobacco	91.00	106.60	47.40	58.80	58.00	71.00	38.60	45.60
Paper, printing, book-binding and photography	101.60	119.50	50.90	59.80	59.40	71.70	36.30	45.30
Chemicals, dyes, explosives, paints, non-mineral oils	102.20	118.70	53.90	62.40	63.60	75.70	44.10	49.30
Other	93.70	110.90	42.90	52.00	58.70	71.10	39.90	46.50
<i>Manufacturing groups</i>	95.10	112.70	46.50	57.40	59.00	71.40	37.80	45.60
Non-manufacturing—								
Mining and quarrying	126.60	144.10	67.40	79.30	70.80	83.90	46.60	54.00
Electricity, gas, water and sanitary services	100.30	118.30	55.10	66.20	70.10	85.90	45.80	55.90
Building and construction	97.10	112.90	50.50	59.10	65.00	75.70	39.30	49.50
Transport, storage and communication	105.80	125.10	50.40	61.20	85.50	100.90	46.10	57.00
Finance and property	100.20	117.40	54.50	63.40	67.80	79.50	44.90	53.50
Wholesale trade, primary produce dealing, etc.	88.60	104.60	44.90	52.60	61.60	72.40	40.60	46.50
Retail trade	81.10	95.90	42.70	50.90	59.30	72.40	36.20	44.60
Public authority and community, etc. services(c)	106.70	123.90	53.60	62.55	79.20	94.40	45.60	55.30
Other industries(d)	85.70	101.10	46.40	59.20	61.50	75.60	35.20	41.60
<i>Non-manufacturing groups</i>	99.60	116.50	49.50	58.70	71.50	86.00	42.20	50.90
All industry groups	97.80	115.10	48.30	58.20	67.40	81.00	41.40	50.10

(a) Total private and government employees. (b) Last pay-period in October. For definitions, particulars of scope of the surveys, etc., see pages 270-2. (c) Public authority activity (n.e.,i.) and community and business services. (d) Includes amusement, hotels, cafés, personal service, etc.; and forestry, fishing and trapping.

**AVERAGE WEEKLY HOURS PAID FOR, FULL-TIME EMPLOYEES OTHER THAN
MANAGERIAL, ETC. STAFF(a): INDUSTRY GROUPS, AUSTRALIA
OCTOBER 1972 AND 1973(b)**

Industry group	Adult males		Junior males		Adult females		Junior females	
	October 1972	October 1973	October 1972	October 1973	October 1972	October 1973	October 1972	October 1973
Manufacturing—								
Extracting, refining and founding of metals	44.0	44.8	40.4	38.8	40.0	40.1	39.3	39.3
Engineering and metal-working	43.2	43.9	40.4	41.1	39.9	40.0	39.3	39.0
Ships, vehicles, parts and accessories	41.9	42.7	39.4	40.1	39.8	40.3	39.4	40.0
<i>Founding, engineering, vehicles, etc.</i>	42.9	43.6	40.1	40.3	39.9	40.1	39.3	39.2
Textiles, clothing and footwear	43.4	44.1	39.8	41.1	39.3	39.3	38.6	38.7
Food, drink and tobacco	43.4	43.6	40.9	41.3	39.8	40.4	38.9	39.2
Paper, printing, book-binding and photography	42.5	42.8	41.0	41.4	39.7	40.2	38.8	39.6
Chemicals, dyes, explosives, paints, non-mineral oils	42.5	42.1	40.4	40.0	38.6	39.5	38.4	38.4
Other	43.9	44.2	40.7	40.7	39.7	39.9	39.8	38.9
<i>Manufacturing groups</i>	43.1	43.6	40.4	40.6	39.6	39.8	39.0	39.0
Non-manufacturing								
Mining and quarrying	43.6	43.9	41.4	42.5	38.9	39.5	38.7	39.2
Electricity, gas, water and sanitary services	40.7	40.7	39.5	39.6	37.3	37.9	37.3	37.4
Building and construction	42.9	42.4	40.7	40.4	38.9	38.6	39.2	39.2
Transport, storage and communication	42.5	43.3	41.0	41.5	40.5	40.9	40.2	41.9
Finance and property	39.1	39.5	39.0	39.2	37.8	38.0	38.4	38.8
Wholesale trade, primary produce dealing, etc.	41.6	41.7	40.6	40.3	38.7	38.7	39.1	38.9
Retail trade	41.6	41.8	41.0	41.0	39.7	39.6	39.7	39.8
Public authority and community, etc. services(c)	38.9	39.0	37.7	37.8	37.7	37.8	37.9	38.1
Other industries(d)	42.3	41.8	41.2	42.1	40.2	40.1	39.9	39.8
<i>Non-manufacturing groups</i>	41.4	41.4	40.1	40.1	38.6	38.6	38.8	39.1
All industry groups(e)	42.0	42.3	40.2	40.3	38.9	39.0	38.9	39.1

(a) Total (private and government) employees. (b) Last pay-period in October. For definitions, particulars of scope of the surveys, etc. see pages 270-2. (c) Public authority activity (n.e.i.) and community and business services. (d) Includes amusement, hotels, cafés, personal service, etc.; and forestry, fishing and trapping. (e) Excludes rural industry, and private domestic service.

**AVERAGE EARNINGS AND HOURS, PART-TIME EMPLOYEES(a)
AUSTRALIA, OCTOBER 1972 AND 1973(b)**

October— (b)	Average weekly earnings (\$)				Average weekly hours paid for				Average hourly earnings (\$)			
	Adult males	Junior males	Adult females	Junior females	Adult males	Junior males	Adult females	Junior females	Adult males	Junior males	Adult females	Junior females
1972	30.10	8.90	31.00	7.40	13.8	8.4	17.1	7.0	2.19	1.06	1.81	1.05
1973	37.00	11.40	36.80	9.50	13.8	9.1	17.2	7.6	2.68	1.25	2.14	1.25

(a) Total (private and government) employees. Part-time employees are those who normally work less than 30 hours a week. For definitions, particulars of scope of the surveys, etc., see pages 270-2. (b) Last pay-period in October.

Survey of income distribution 1968-69

In November 1969 a survey based on the quarterly population survey (see the chapter Employment and Unemployment), was conducted throughout Australia in order to obtain information about the distribution of personal and family income within Australia.

Questions were asked in respect of each person aged 15 years or over in the sample on the amount of income received in 1968-69 from each of the following sources: (1) money wages or salary; (2) own business, trade or profession (net income); (3) share in partnership (net income); (4) government social service benefits; (5) superannuation or annuity; (6) interest, dividends, rent, etc.; (7) other sources, e.g. trust or will, maintenance or alimony.

The following points should be kept in mind in interpreting the results.

- (i) For the purposes of the survey, income was defined to include (a) all income received while living in Australia, including income received from an overseas source and (b) all income received from an Australian source while living overseas.
- (ii) A person included in the survey in November 1969 who had lived outside Australia for the whole of 1968-69 was not asked the income questions. A person who had arrived in Australia towards the end of the reference year would have been recorded as receiving little or no income in Australia.
- (iii) The income received by a family or a person does not necessarily reflect the standard of living of that family or person. For example, although alimony and maintenance payments were counted as income, gifts or donations such as might be made by relatives who were not members of the household were not included, even though such gifts or donations may have been the sole means of support. No account was taken of the possible run-down of assets accumulated in the past.
- (iv) Some couples who had married in the period July to November 1969, and some individuals, may have received no income in 1968-69. (They may, for example, have been at school or university.) Family and individual income would in such cases have been recorded as nil.
- (v) Family income does not include amounts received by persons who were members of the family during all or part of the year 1968-69 if these persons had died during or after the financial year or no longer resided with the family at the time of the survey.

Explanations of the terms used in the tables beginning on page 277 are given in the following paragraphs.

Earned income is income from wages or salary or income from own business, trade or profession or income from a share in a partnership, or the sum of any of these components. Recipients of earned income are referred to as 'income earners' or 'persons with earned income', as distinct from the all-inclusive term 'income recipients', which refers to persons who received income from any source.

A **family** was generally defined to consist of two or more persons living in the same household, including the head of the family and any person or persons having any of the following relationships to the head:

- (i) wife
- (ii) son or daughter of any age, if unmarried and not accompanied by children of his or her own
- (iii) brother or sister 16 years of age or over, if unmarried and not accompanied by children of his or her own
- (iv) grandchild, if unmarried and not accompanied by either of his or her parents, nor by children of his or her own
- (v) ancestor, if not married and not accompanied by children under 16 years of age of his or her own; or
- (vi) any child under 16 years of age not accompanied by a parent, unless the child was related to some person in a second family in the household.

Where the head of the family was in the armed forces or in an institution at the time of the survey and particulars of his income for the year 1968-69 were available, he was counted as a family member.

The following points should be noted in relation to the definition of a family in the previous paragraph:

- (i) the term 'relationship' includes relationships by blood, marriage or adoption
- (ii) the marriage relationship includes legal and de facto relationships
- (iii) widowed and divorced persons are considered to be not married.

A family, as defined, can contain no more than two married persons, and can contain two married persons only if these persons are husband and wife.

Family income is the sum of the incomes received from all sources by all members of the family for whom particulars of income were obtained.

Full-year, full-time workers are those who had worked in Australia for at least 50 weeks during the year 1968-69 and had been engaged mostly in full-time work, defined as work occupying 35 hours or more per week. A person who had worked for 26 weeks full time and for 24 weeks part time would have been classified as a full-time worker; however, it should be noted that most persons who work for a full year engage in either full-time or part-time work, but not in both. This is evidenced by the results of the survey *Labour Force Experience During 1968* (published in a mimeographed bulletin, 6.26). The survey results indicated that, of persons who worked throughout all, or nearly all, of 1968 and who were mainly full-time workers, only about one person in one thousand did any part-time work at all.

Post-school qualifications comprise university degrees, tertiary qualifications other than university degrees (shown as non-degree tertiary), technician level and trade level qualifications. Apart from university degrees, the levels were determined as follows:

Non-degree tertiary is a level relating to qualifications obtained following substantial advanced study beyond matriculation, conferred by institutions and professional associations, e.g. Associate of Australian Society of Accountants, Diploma in Business Studies, Teaching Certificate, Diploma of Engineering.

Technician is a level which requires theoretical knowledge, as well as practical skills, e.g. wool-classing or nursing. Certificates issued by technical colleges following periods of 4 or 5 years part-time study after passing intermediate or final-year secondary school examinations are classified as 'technician'. Technician level qualifications were classified according to the field of study as *technical* (mainly engineering and technological), *commercial* (accounting, administration, secretarial, etc.) or *other* (including nursing)

Trade is formal recognition of competence in a skilled manual occupation which is usually obtained through an apprenticeship and satisfactory progress in part-time studies concurrently with practical training (e.g. plumber, fitter, compositor, carpenter, hairdresser).

Median income is the amount which divides the distribution, e.g. of families or individuals, into two equal groups, one having income above the median and the other having income below it. Medians were calculated from grouped data, the class intervals being finer than those published in the tables. Linear interpolation was used within the class interval in which the median fell.

Mean income is the amount obtained by dividing the total income of a group (e.g. families, income earners, full-year, full-time workers) by the number of units in that group. In calculating means it was assumed that observations were spread evenly across class intervals, the mid-point of each interval being used in calculating group aggregates.

Standard errors. As the questions on income were asked of only half the labour force survey sample the following table of standard errors applies.

APPROXIMATE STANDARD ERRORS OF ESTIMATES

Size of estimate (Persons)	Approximate standard error of estimates		Size of estimate (Persons)	Approximate standard error of estimates	
	Persons	Per cent of estimate		Persons	Per cent of estimate
8,000 . . .	1,250	16	100,000	3,750	3.8
10,000 . . .	1,375	14	200,000	5,000	2.5
15,000 . . .	1,500	10	500,000	6,250	1.3
20,000 . . .	1,750	9	1,000,000	6,875	0.7
50,000 . . .	2,500	5	2,000,000	10,000	0.5

The rise in incomes since the year 1968-69 has been considerable. However, the findings of the survey with regard to dispersion and relativity between different sources, different age groups with different qualifications are still valuable. As a measure of the rise, average weekly earnings per employed male unit (a series which refers only to wage and salary earners and which is published quarterly in a mimeographed statement (6.18)) may be used as a rough guide. Estimates for the period 1968-69 to 1973-74, and increases in the series in absolute and relative terms, are shown below:

Period	Average weekly earnings (\$)	Increase since 1968-69	
		(\$)	(Per cent)
1968-69 . . .	70.40	..	..
1969-70 . . .	76.30	5.90	8.4
1970-71 . . .	84.80	14.40	20.5
1971-72 . . .	93.00	22.60	32.1
1972-73 . . .	101.50	31.10	44.2
1973-74 . . .	118.00	47.60	67.6

ALL FAMILIES: FAMILY INCOME, 1968-69(a)

Total family income (b) (\$)			Number of families ('000)	Cumulative per cent of all families	Total family income (b) (\$)			Number of families ('000)	Cumulative per cent of all families
Nil			21.2	0.7	5,000 and under	5,250	127.1	62.7	
1 and under	100		8.6	0.9	5,250	" "	5,500	114.7	
100	" "	200	*	1.1	5,500	" "	5,750	95.6	
					5,750	" "	6,000	97.5	
200	" "	400	*	1.4	6,000	" "	6,250	90.1	
400	" "	600	9.2	1.7	6,250	" "	6,500	72.6	
600	" "	800	15.2	2.1	6,500	" "	6,750	70.6	
800	" "	1,000	14.5	2.6	6,750	" "	7,000	55.2	
1,000	" "	1,200	27.6	3.5	7,000	" "	7,250	58.4	
1,200	" "	1,400	95.5	6.5	7,250	" "	7,500	54.2	
1,400	" "	1,600	55.9	8.2	7,500	" "	7,750	42.3	
1,600	" "	1,800	46.7	9.7	7,750	" "	8,000	36.8	
1,800	" "	2,000	45.2	11.1					
2,000	" "	2,200	64.0	13.1	8,000	" "	8,500	69.2	
2,200	" "	2,400	66.7	15.2	8,500	" "	9,000	50.3	
2,400	" "	2,600	77.8	17.2	9,000	" "	9,500	37.9	
2,600	" "	2,800	88.6	20.5	9,500	" "	10,000	34.9	
2,800	" "	3,000	94.6	23.5					
3,000	" "	3,200	123.3	27.3	10,000	" "	11,000	54.5	
3,200	" "	3,400	115.1	31.0	11,000	" "	12,000	36.0	
3,400	" "	3,600	107.9	34.4	12,000	" "	13,000	26.9	
3,600	" "	3,800	115.7	38.0	13,000	" "	14,000	15.4	
3,800	" "	4,000	110.4	41.5	14,000	" "	15,000	12.4	
4,000	" "	4,250	145.4	46.0	15,000	" "	20,000	34.8	
4,250	" "	4,500	136.6	50.3	20,000 and over			23.2	
4,500	" "	4,750	140.9	54.8					
4,750	" "	5,000	125.5	58.7	Total		3,176.3		

(a) For definitions see page 275. (b) From all sources. * Less than 8,000. Not published because subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

ALL FAMILIES: FAMILY INCOME, FAMILY SIZE AND NUMBER OF INCOME EARNERS IN FAMILY, 1968-69 (a)

Totally family income (c) (\$)	Number in family (b)					Total
	2	3	4	5	6 and over	
NO INCOME EARNERS						
Under 500						35.8
500 and under	1,000					13.5
1,000	" "	1,500				115.4
1,500	" "	2,000				37.7
2,000	" "	2,500				22.8
2,500	" "	3,000				
3,000	" "	4,000				10.7
4,000 and over						17.7
Total		214.3		51.6		265.8
				— dollars —		
Median income		1,370		1,290		1,360
Mean income		1,940		1,320		1,820

ALL FAMILIES: FAMILY INCOME, FAMILY SIZE AND NUMBER OF INCOME
EARNERS IN FAMILY, 1968-69 (a)—continued

	Number in family (b)					Total
	2	3	4	5	6 and over	
ONE INCOME EARNER						
<i>Total family income (c) (\$)</i> —		— '000 families —				
Under 1,000	12.4					26.1
1,000 and under 1,500	19.2	10.9	9.4	*	*	31.1
1,500 " " 2,000	28.6	11.4	8.7			55.7
2,000 " " 2,500	55.2	22.2	24.7	14.4	10.1	119.7
2,500 " " 3,000	59.9	28.6	33.6	18.1	12.7	152.9
3,000 " " 3,500	64.8	39.8	42.8	26.4	21.7	195.5
3,500 " " 4,000	41.7	36.4	43.6	23.6	21.5	166.8
4,000 " " 4,500	32.5	24.3	36.6	23.2	18.4	135.0
4,500 " " 5,000	21.3	19.9	28.1	17.0	12.1	98.4
5,000 " " 5,500	16.3	14.9	20.1	16.0	11.3	78.5
5,500 " " 6,000	9.8	9.9	11.4	9.6	*	47.9
6,000 " " 7,000	15.3	12.0	18.9	11.1	11.0	68.3
7,000 " " 8,000	8.6	*	*	9.9	*	32.7
8,000 " " 10,000	10.0					30.7
10,000 and over	12.3	10.4	15.1	12.4	9.8	39.3
<i>Total</i>	<i>408.1</i>	<i>244.5</i>	<i>299.0</i>	<i>184.7</i>	<i>142.3</i>	<i>1,278.7</i>
		— dollars —				
Median income	3,190	3,600	3,820	4,140	4,100	3,660
Mean income	3,800	4,060	4,250	4,780	4,690	4,190
TWO INCOME EARNERS						
<i>Total family income (c) (\$)</i> —		— '000 families —				
Under 2,000	15.8					34.8
2,000 and under 2,500	12.9	15.3	*	*	*	28.4
2,500 " " 3,000	17.8	15.2	8.6			51.9
3,000 " " 3,500	28.5	20.1	15.9	12.8	13.1	80.2
3,500 " " 4,000	34.0	27.6	23.9	9.6	8.6	103.6
4,000 " " 4,500	43.0	31.5	25.1	16.1	11.3	126.9
4,500 " " 5,000	50.3	37.0	27.0	17.6	11.5	143.5
5,000 " " 5,500	50.8	31.7	29.0	15.2	11.8	138.5
5,500 " " 6,000	42.9	27.9	22.8	14.7	*	115.2
6,000 " " 7,000	51.1	40.4	29.4	15.6	14.1	150.7
7,000 " " 8,000	32.3	23.0	18.8	10.4	11.3	95.8
8,000 " " 9,000	15.3	12.9	9.4	8.6	*	50.7
9,000 " " 10,000	9.9	8.8	*	*	*	30.2
10,000 " " 12,000	9.9	8.5				36.7
12,000 and over	13.0	11.0	17.2	12.6	13.3	48.8
<i>Total</i>	<i>427.4</i>	<i>311.1</i>	<i>241.0</i>	<i>143.1</i>	<i>113.3</i>	<i>1,235.9</i>
		— dollars —				
Median income	5,110	5,130	5,230	5,240	5,330	5,180
Mean income	5,590	5,800	5,850	6,220	6,290	5,830

**ALL FAMILIES: FAMILY INCOME, FAMILY SIZE AND NUMBER OF INCOME
EARNERS IN FAMILY, 1968-69 (a)—continued**

	<i>Number in family (b)</i>					<i>Total</i>
	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6 and over</i>	
THREE OR MORE INCOME EARNERS						
<i>Total family income (c) (\$) —</i>						
			<i>— '000 families —</i>			
Under 4,000	..	*	*	*	*	22.4
4,000 and under 5,000	..	10.8	9.9	*	10.7	38.0
5,000 " " 6,000	..	14.4	13.7	12.4	11.1	51.7
6,000 " " 7,000	..	13.3	21.8	16.2	16.6	67.9
7,000 " " 8,000	..	13.9	17.2	15.1	15.0	61.2
8,000 " " 9,000	..	10.0	16.3	12.3	8.6	47.2
9,000 " " 10,000	..	*	10.9	8.5	*	32.0
10,000 " " 12,000	..	*	12.0	8.9	9.2	35.1
12,000 and over	..	10.3	11.9	9.2	9.1	40.4
<i>Total</i>	..	92.0	118.4	94.1	91.5	395.9
			<i>— dollars —</i>			
Median income	..	7,030	7,490	7,390	7,080	7,270
Mean income	..	7,850	8,200	8,310	7,920	8,080
ALL FAMILIES						
<i>Total family income (c) (\$) —</i>						
			<i>— '000 families —</i>			
Under 500	19.0	8.6	11.7	*	*	47.3
500 and under 1,000	21.9	*	*	*	*	35.1
1,000 " " 1,500	130.0	12.9	9.3	9.9	*	157.4
1,500 " " 2,000	68.6	20.4	12.2			113.5
2,000 " " 2,500	86.2	33.2	27.6	14.2	10.7	171.9
2,500 " " 3,000	86.7	45.2	44.5	25.0	18.3	219.7
3,000 " " 3,500	98.0	61.9	59.7	35.4	32.4	287.3
3,500 " " 4,000	79.3	67.9	70.0	35.4	32.4	285.0
4,000 " " 4,500	78.8	61.7	65.5	42.2	33.8	282.0
4,500 " " 5,000	73.8	62.1	62.0	38.1	30.5	266.4
5,000 " " 5,500	68.8	55.1	54.2	35.8	27.8	241.8
5,500 " " 6,000	53.6	44.1	42.8	32.0	20.5	193.1
6,000 " " 7,000	67.4	66.0	70.5	42.9	41.8	288.6
7,000 " " 8,000	42.9	40.8	42.0	35.3	30.6	191.6
8,000 " " 9,000	23.3	24.4	30.0	24.8	17.1	119.5
9,000 " " 10,000	13.3	18.1	19.2	12.5	9.7	72.8
10,000 " " 12,000	15.9	16.6	23.8	17.1	17.2	90.5
12,000 " " 15,000	10.0	12.3	14.2	10.3	*	54.7
15,000 and over	12.2	12.6	11.9	10.9	10.4	58.0
<i>Total</i>	1,049.7	669.5	674.7	428.8	353.5	3,176.3
			<i>— dollars —</i>			
Median income	3,580	4,630	4,760	5,090	5,130	4,480
Mean income	4,150	5,300	5,440	5,970	5,980	5,120

(a) For definitions see page 275. (b) Excludes persons who were not residents of the household, except that where the head of the family was in the armed forces or in an institution at the time of the survey and particulars of his income for the year 1968-69 were available, he was counted as a family member. (c) From all sources. (d) Number in family three and over. * Less than 8,000. See note * to table on page 277.

ALL INCOME RECIPIENTS (a): TOTAL INCOME, 1968-69 (b)

Total income (c) (\$)	Number ('000)			Total income (c) (\$)	Cumulative per cent of all income recipients				
	Males	Females	Persons		Males	Females	Persons		
1 and under	100	56.5	647.6	704.1	Under	100	1.4	17.2	9.0
100 "	200	26.8	301.9	328.7	"	200	2.1	25.2	13.2
200 "	400	55.0	311.7	366.7	"	400	3.4	33.4	17.9
400 "	600	65.4	183.3	248.7	"	600	5.0	38.3	21.1
600 "	800	233.3	554.2	787.5	"	800	10.8	53.0	31.1
800 "	1,000	91.5	199.2	290.7	"	1,000	13.1	58.2	34.9
1,000 "	1,200	77.6	174.9	252.5	"	1,200	15.0	62.7	38.1
1,200 "	1,400	82.5	163.9	246.4	"	1,400	17.0	67.2	41.2
1,400 "	1,600	93.1	174.9	268.0	"	1,600	19.3	71.8	44.7
1,600 "	1,800	93.2	173.9	267.2	"	1,800	21.6	76.4	48.1
1,800 "	2,000	101.1	153.3	254.4	"	2,000	24.1	80.5	51.3
2,000 "	2,200	173.1	161.0	334.1	"	2,200	28.4	84.8	55.6
2,200 "	2,400	176.1	115.6	291.6	"	2,400	32.7	87.8	59.3
2,400 "	2,600	196.2	90.6	286.8	"	2,600	37.6	90.2	63.0
2,600 "	2,800	220.8	69.3	290.1	"	2,800	43.0	92.1	66.7
2,800 "	3,000	203.5	49.4	253.0	"	3,000	48.1	93.4	69.9
3,000 "	3,200	272.9	50.3	323.2	"	3,200	54.8	94.7	74.1
3,200 "	3,400	200.5	33.3	233.9	"	3,400	59.8	95.6	77.1
3,400 "	3,600	185.4	19.8	205.2	"	3,600	64.3	96.1	79.7
3,600 "	3,800	158.4	18.4	176.8	"	3,800	68.2	96.6	81.9
3,800 "	4,000	136.1	13.6	149.8	"	4,000	71.6	97.0	83.8
4,000 "	4,500	323.1	30.6	353.7	"	4,500	79.6	97.8	88.4
4,500 "	5,000	205.7	20.1	225.8	"	5,000	84.7	98.3	91.3
5,000 "	5,500	170.5	15.6	186.2	"	5,500	88.9	98.7	93.6
5,500 "	6,000	98.5	*	105.9	"	6,000	91.3	98.9	95.0
6,000 "	7,000	130.0	14.4	144.5	"	7,000	94.5	99.3	96.8
7,000 "	8,000	69.5	15.2	76.2	"	8,000	96.2	99.5	97.8
8,000 "	9,000	39.3		44.0	"	9,000	97.2	99.6	98.4
9,000 "	10,000	23.8	10.9	27.6	"	10,000	97.8	99.7	98.7
10,000 "	11,000	26.1		27.9	"	11,000	98.5	99.8	99.1
11,000 "	12,000	11.1		13.0	"	12,000	98.7	99.8	99.2
12,000 "	13,000	10.1		10.4	"	13,000	99.0	99.8	99.4
13,000 "	15,000	12.1	14.7	"	15,000	99.3	99.9	99.6	
15,000 "	20,000	17.7	20.2	"	20,000	99.7	100.0	99.8	
20,000 and over		11.6	13.4						
Total		4,048.4	3,774.6	7,822.8	Total		100.0	100.0	100.0

— dollars —

Median income	3,050	740	1,910	..	..	..
Mean income	3,390	1,180	2,320	..	..	..

(a) Non-institutional population aged 15 years and over. (b) For definitions see page 275. (c) From all sources.
* Less than 8,000. See note * to table on page 277.

NOTE. For a summary of the factors affecting the estimates in this table (e.g. residence in Australia for only part of the year) see explanatory notes on page 275.

FULL-YEAR, FULL-TIME WORKERS: TOTAL INCOME, 1968-69(a)

Total income (b) (\$)	Number ('000)			Total income (b) (\$)	Cumulative per cent of full-year full-time workers		
	Males	Females	Persons		Males	Females	Persons
Under 1,000	70.3	69.9	140.2	Under 1,000	2.2	6.9	3.4
1,000 and under 1,200	34.4	48.1	82.5	1,200	3.3	11.7	5.3
1,200 " " 1,400	42.6	57.8	100.4	1,400	4.7	17.4	7.7
1,400 " " 1,600	56.6	94.6	151.2	1,600	6.4	26.8	11.4
1,600 " " 1,800	51.5	111.9	163.4	1,800	8.1	37.9	15.3
1,800 " " 2,000	71.3	108.5	179.7	2,000	10.3	48.6	19.6
2,000 " " 2,200	136.8	118.5	255.3	2,200	14.7	60.4	25.7
2,200 " " 2,400	147.7	92.2	239.9	2,400	19.3	69.5	31.5
2,400 " " 2,600	172.0	70.9	242.9	2,600	24.8	76.6	37.3
2,600 " " 2,800	200.0	53.6	253.6	2,800	31.1	81.9	43.4
2,800 " " 3,000	187.4	34.2	221.6	3,000	37.0	85.3	48.7
3,000 " " 3,200	254.1	34.9	288.9	3,200	45.1	88.7	55.6
3,200 " " 3,400	187.3	24.8	212.1	3,400	51.0	91.2	60.7
3,400 " " 3,600	174.6	11.6	186.2	3,600	56.5	92.3	65.2
3,600 " " 3,800	150.6	10.7	161.3	3,800	61.3	93.4	67.0
3,800 " " 4,000	129.6	8.6	138.1	4,000	65.4	94.2	72.3
4,000 " " 4,500	308.8	17.1	325.8	4,500	75.1	95.9	80.2
4,500 " " 5,000	196.6	11.7	208.3	5,000	81.3	97.1	85.1
5,000 " " 5,500	164.3	12.7	173.6	5,500	86.5	98.0	89.3
5,500 " " 6,000	93.5		96.9	6,000	89.5	98.3	91.6
6,000 " " 6,500	73.7	11.4	78.9	6,500	91.8	98.8	93.5
6,500 " " 7,000	49.4		52.6	7,000	93.4	99.2	94.8
7,000 " " 7,500	40.9		43.0	7,500	94.7	99.4	95.8
7,500 " " 8,000	24.5		25.4	8,000	95.5	99.5	96.4
8,000 " " 8,500	24.1		25.1	8,500	96.2	99.6	97.0
8,500 " " 9,000	12.6		12.6	9,000	96.6	99.6	97.3
9,000 " " 9,500	12.5		13.5	9,500	97.0	99.7	97.7
9,500 " " 10,000	10.2		10.5	10,000	97.3	99.7	97.9
10,000 " " 11,000	24.5	*	25.2	11,000	98.2	99.8	98.5
11,000 " " 12,000	10.7		11.2	12,000	98.5	99.8	98.8
12,000 " " 13,000	9.8		10.1	13,000	98.8	99.9	99.0
13,000 " " 15,000	11.9		12.3	15,000	99.2	99.9	99.3
15,000 " " 20,000	16.4	11.2	17.2	20,000	99.7	100.0	99.7
20,000 and over	10.8						
Total	3,161.8	1,009.0	4,170.9	Total	100.0	100.0	100.0

(a) For definitions see page 275. (b) From all sources. * Less than 8,000. See note * to table on page 277.

**FULL-YEAR, FULL-TIME WORKERS: EDUCATIONAL ATTAINMENT
AGE AND MEAN INCOME(a), 1968-69(b)**
(**\$**)

Educational attainment	Age group (years)					Total
	15-25	25-34	35-44	45-54	55 and over	
MALES						
With post-school qualifications—						
University degree	*	6,940	8,910	10,320	8,920	8,170
Non-degree tertiary	3,430	5,180	6,600	6,360	7,150	5,940
Technician level	3,200	4,470	5,410	5,620	5,010	4,970
Technical	*	4,590	5,400	5,450	*	4,980
Commercial	*	*	6,030	5,940	*	5,580
Other	*	3,790	4,730	5,440	*	4,410
Trade level	3,270	4,030	4,270	4,120	3,620	3,950
Without post-school qualifications—						
Matriculation, n.e.i.	2,840	4,460	4,940	5,120	5,650	4,320
Left school at—						
17	2,640	3,970	4,530	4,360	5,010	3,750
16	2,290	3,750	4,380	4,630	4,210	3,510
14 or 15	2,320	3,440	3,810	3,770	3,600	3,420
13 or under	*	3,090	3,320	3,530	3,140	3,260
FEMALES						
With post-school qualifications—						
University degree or non-degree tertiary	2,730	3,490	4,060	3,820	3,730	3,370
Technician or trade level	2,070	2,640	3,430	2,780	*	2,740
Without post-school qualifications—						
Matriculation, n.e.i.	1,970	*	*	*	*	2,550
Left school at—						
17	1,970	2,330	2,590	2,840	*	2,280
16	1,740	2,450	2,870	2,460	2,510	2,070
14 or 15	1,580	2,330	2,240	2,280	2,170	1,990
13 or under	*	1,820	2,250	2,110	1,890	2,010
PERSONS						
With post-school qualifications—						
University degree	3,530	6,610	8,550	9,640	8,140	7,630
Non-degree tertiary	2,940	4,600	6,120	5,910	6,260	5,090
Technician level	2,560	4,010	4,920	4,830	4,950	4,320
Technical	*	4,560	5,400	5,400	*	4,940
Commercial	*	4,820	5,790	5,790	*	5,330
Other	2,300	3,190	3,950	3,930	4,520	3,480
Trade level	3,170	3,970	4,290	4,110	3,610	3,910
Without post-school qualifications—						
Matriculation, n.e.i.	2,560	4,190	4,530	4,560	5,380	3,910
Left school at—						
17	2,390	3,650	4,020	3,920	4,530	3,330
16	2,030	3,440	4,030	3,980	3,800	3,010
14 or 15	1,990	3,210	3,430	3,430	3,410	3,030
13 or under	*	2,760	3,070	3,280	2,970	2,990

(a) Total income from all sources. (b) For definitions see page 275. * Based on a figure less than 8,000. See note * to table on page 277. n.e.i. not elsewhere included.

Further details were published in *Income Distribution, 1968-69*, issued in three parts: Part 1 (17.6), Part 2 (17.8) and Part 3 (17.12).

Determination of wage rates in Australia

Legal minimum wage rates in Australia are generally prescribed in awards or determinations of Federal and State industrial arbitration tribunals, in collective agreements registered with these tribunals, or in unregistered collective agreements. A list of the main industrial tribunals operating in Australia is shown in *Labour Report* No. 58, 1973.

In awards, etc. of State tribunals in all States except Victoria the wage rates specified for particular occupations consist of a basic wage and secondary wage payments. A basic wage is prescribed separately for adult males and adult females and is a common component of prescribed rates of pay in an award. In addition to the basic wage are margins for skill, etc. for particular occupations and these together with loadings of various kinds peculiar to the occupation or industry make up the secondary wage. The division of award rates into basic wage and secondary wage also applied to awards, etc. of the Commonwealth Conciliation and Arbitration Commission and of Victorian Wages Boards prior to 1 July 1967. However, as a result of the decision of the Commission in the National Wage Cases of 1967 and a subsequent decision of the Victorian Industrial Appeals Court, basic wages and margins were eliminated from Federal awards and Victorian Wages Board determinations, and award, etc. rates of pay were expressed as total wages.

In July 1966 the Commonwealth Conciliation and Arbitration Commission inserted rates of minimum wage for adult males into Federal awards. This decision has been followed by State tribunals so that now in most State and Federal awards, etc., where applicable, rates of minimum wage for adult males are prescribed. The awards in general state that no adult male employee shall be paid less than the minimum wage for working the standard weekly hours of work. The concept of a minimum wage has also been extended to adult females covered by Federal and State awards. For further information on minimum wages for adult males and adult females see page 262-3.

The following paragraphs set out recent decisions by Federal and State industrial tribunals affecting award, etc. rates of pay. For further information including a history of wage determination in Australia reference should be made to the *Labour Report*. Sections X, XI, XII and XIII of the Appendix of *Labour Report* No. 57, 1972 contain tables of basic wages, minimum wages, and general increases in award total wages. Also included in this chapter are brief summaries of the provision of paid annual leave and paid long service leave to employees. These provisions have been made by decisions of Federal and State industrial arbitration authorities or by legislation.

Total wages in Federal awards

As a result of the National Wage Cases of 1967, the Commonwealth Conciliation and Arbitration Commission announced the elimination of basic wages and margins from Federal awards and the introduction of total wages. The total wages were arrived at by adding an amount of \$1 a week to the weekly award wages for each adult male and adult female classification to operate from the beginning of the first pay-period to commence on or after 1 July 1967.

In its decisions in National Wage Cases, the Commonwealth Conciliation and Arbitration Commission increased total award rates of pay for adult male and female employees by \$1.35 a week in October 1968, by 3 per cent in December 1969, by 6 per cent in January 1971, by \$2.00 a week in May 1972 and by 2 per cent plus \$2.50 a week in May 1973. Increases were also made to the minimum wage for adult males. (See next page).

On 2 May 1974 the Australian Conciliation and Arbitration Commission made the following decisions in the National Wage Case 1974. Current Federal award rates for adult males and adult females were increased by 2 per cent plus a flat increase of \$2.50 a week, and the minimum wage for adult males by \$8 a week. Subject to a phasing-in period the minimum wage for adult males was awarded to adult females. (See next page.) These variations operated from the beginning of the first pay-period commencing on or after 23 May 1974.

The Commission also stated in its judgment that the President of the Commission would call a conference of the principal parties who appeared before the Commission and would seek the full assistance of the Australian Government to discuss two interacting issues—wage fixation methods and wage indexation.

Minimum wage for adult males and adult females

In July 1966 the Commonwealth Conciliation and Arbitration Commission, in its decisions in the Basic Wage, Margins and Total Wage Cases of 1966, inserted in Federal awards provisions for a minimum wage for adult males. The Commission said that it had given detailed consideration to lower paid classifications and had decided to grant some immediate relief to low wage earners. The Commission said that it intended to insert a new provision in awards by which it would be prescribed

that no adult male employee should be paid as a weekly wage for working the standard hours of work an amount less than the minimum wage, i.e. his appropriate basic wage rate plus \$3.75 a week. The minimum wage was prescribed for adult male employees only and was applied for all purposes of the award, for example, in calculation of overtime and other penalty rates, piece-work, casual employment, sick leave and annual leave. The Commission stated that the provision for a minimum wage for adult male employees was designed to meet the circumstances of employees in the lowest classifications who were in receipt of award rates and no more. It was not intended to affect the wage of any employee who was already receiving the prescribed minimum through over-award payment. The provision for a minimum wage for adult males operated from the beginning of the first pay-period to commence on or after the 11 July 1966. The rates of minimum wage for adult males inserted in Federal awards ranged from \$34.75 to \$37.25 a week for State capital cities.

As a result of the decisions of the Commission in National Wage Cases, the minimum wages for adult males were subsequently increased as follows: July 1967 (\$1 a week), October 1968 (\$1.35), December 1969 (\$3.50), January 1971 (\$4), May 1972 (\$4.70), May 1973 (\$9).

In its decision in the 1974 National Wage Case, the Australian Conciliation and Arbitration Commission increased the rates of minimum wage for adult males by \$8 a week, operative from the beginning of the first pay-period commencing on or after 23 May 1974. It also decided to extend the minimum wage to adult females in three stages. Initially the minimum wage for adult females was to be 85 per cent of the relevant adult male minimum wage, increasing to 90 per cent by 30 September 1974, and to 100 per cent by 30 June 1975. The claim for automatic quarterly adjustments was rejected, although the Commission decided to review the minimum wage after six months.

Industrial tribunals in all States have adopted the concept of a minimum wage for adult males and a minimum wage for adult females for employees covered by State awards, determinations or agreements. In New South Wales the Industrial Commission adopted minimum wages for both adult males and adult females in May 1974. In Victoria, Wages Boards introduced a minimum wage for adult males in December 1969 and for adult females in May 1974. A guaranteed minimum wage for adult males was introduced into Queensland State awards, etc. in May 1970 and for adult females in May 1974. South Australian State awards first prescribed a minimum wage for adult males in September 1966 and a minimum wage for adult females in May 1974. In April 1967 Western Australian State awards, etc. first included a provision for a minimum wage for adult males. The concept of a minimum wage for adult females was adopted in May 1974. Tasmanian Wages Board determinations adopted a minimum wage for adult males in July 1967 and a minimum wage for adult females in May 1974.

Equal pay

The Commonwealth Conciliation and Arbitration Commission, in its decision in the National Wage and Equal Pay Cases 1972, outlined the principle of 'equal pay for work of equal value' for adult and junior females to be applied to all Federal awards and determinations. The Commission stated that the principle meant the fixation of award rates of pay by a consideration of the work performed irrespective of the sex of the worker. The eventual outcome would be a single award rate for an occupational group or classification payable to both male and female employees. Female rates were to be determined by work value comparisons, where value of the work referred to worth in terms of award wage or salary fixation and not worth to the employer. The principle had no application to the minimum wage for adult males. Implementation of this principle would be by agreement or arbitration, and generally take place by three equal instalments so that one-third of any increase would be payable no later than 31 December 1973, half of the remainder by 30 September 1974, and the balance by 30 June 1975.

The Commission decided that the 1969 equal pay principles (*see* earlier issues of the Year Book) would continue to apply in appropriate cases.

For details of equal pay provisions under State awards, etc., *see Labour Report* No. 58, 1973, pages 128-30.

Determination of wage rates in State awards, etc.

The following paragraphs set out recent decisions of State industrial arbitration tribunals affecting rates of pay prescribed in State awards, etc. For further information including a history of wage determination in Australia, reference should be made to *Labour Reports* and earlier issues of the Year Book. Tables of basic wages, minimum wages and general increases in total wages were published in the Appendix to *Labour Report* No. 57, 1972.

New South Wales

Since January 1968 the Industrial Commission of New South Wales has granted increases in award rates of pay to employees under State awards, etc. similar in amount to those awarded to Federal award employees as a result of National Wage Cases. The increases to State awards were made through increases in basic wages and margins.

It was not till May 1974 that the concept of a minimum wage for adult males and a minimum wage for adult females was generally adopted for State awards. (*see below*).

In May 1974 the Commission increased weekly award wages by 2 per cent plus \$2.50 a week for both adult males and adult females. These increases were inclusive of increases of \$3.40 a week in the basic wages for adult males and adult females which became \$47.80 and \$38.50 a week respectively. The minimum wages for adult males and adult females were set at \$68.80 and \$58.50 a week respectively. These variations operated from the beginning of the first pay-period commencing on or after 23 May 1974.

Victoria

Since July 1967 wage rates in Victorian Wages Board determinations have been expressed as total wages as in Federal awards. (*see page 283*).

Following decisions of the Commonwealth Conciliation and Arbitration Commission in National Wage Cases, total wages prescribed for adult males and adult females in Wages Board determinations have been increased by similar amounts to those awarded to Federal award employees.

In December 1969 the Industrial Appeals Court ordered that a minimum wage for adult males should operate in all Wages Board determinations. Since then this wage has been increased by the same amount of increase as prescribed for the Federal minimum wage for adult males. (*see page 283*).

From the beginning of the first pay-period commencing on or after 23 May 1974 the majority of Wages Board determinations granted increases in total wages for adult males and adult females of 2 per cent plus \$2.50 a week. The minimum wage for adult males was increased by \$8.00 to \$68.00 a week, and the concept of the minimum wage was extended to adult females as for females employed under Federal awards. (*see page 284*).

Queensland

The Industrial Conciliation and Arbitration Commission of Queensland has in recent years considered applications to increase wage rates prescribed in State awards subsequent to the publication of retail price index numbers or to decisions in the National Wage Cases. (*see page 283*). Details of changes in State award wage rates to February 1973 will be found in earlier issues of the Year Book and the *Labour Report*.

In May 1970 the Industrial Commission declared that a guaranteed minimum wage for adult males would be prescribed in all awards and industrial agreements. Since then there have been a number of increases made to the minimum wage.

On 16 August 1973 the Industrial Conciliation and Arbitration Commission determined that as from 27 August 1973 the basic wage should be increased by 60 cents a week for adult males and by 45 cents a week for adult females. The minimum wage for adult males was increased by 60 cents.

From 26 November 1973 the Commission increased the basic wage by \$1.80 a week for adult males and \$1.35 a week for adult females. The minimum wage for adult males was increased by \$1.80 a week.

In March 1974 the Commission declared that as from 11 March 1974 the Queensland basic wage should be increased by \$1.60 a week for adult males and by \$1.20 a week for adult females, and that the minimum wage for adult males should be increased by \$1.60 a week.

From 27 May 1974 the basic wage was further increased by \$1.20 a week for adult males and by 90 cents a week for adult females. The minimum wage for adult males was increased by \$4 a week to \$68.50 for the Eastern District of the Southern Division (including Brisbane). For other areas of the State, district allowances were added to this rate (*see Labour Report No. 58, 1973, page 127*). The Commission extended the minimum wage to adult females in three stages, as for females under Federal awards. This set the minimum wage for adult females at 85 per cent of the male rate, i.e. \$58.23 a week for the Eastern District of the Southern Division (including Brisbane) from 27 May 1974. The percentage would be increased to 90 per cent by 30 September 1974 and 100 per cent by 30 June 1975.

South Australia

Following increases in rates of pay in Federal awards as a result of National Wage Cases (*see* page 283), the South Australian Industrial Commission granted increases in rates prescribed in State awards.

A minimum wage for adult males was introduced into State awards in September 1966. Since then increases to this wage have been the same as those granted to the Federal minimum wage to adult males (*see* pages 283-4).

On 13 May 1974 the Industrial Commission increased rates of pay under State awards by 2 per cent plus \$2.50 a week for adult males and adult females. The State living wage was increased by \$3.35 to \$46.50 a week for adult males and by \$3.20 to \$37.30 a week for adult females. These variations operated from the beginning of the first pay-period commencing on or after 23 May 1974. The minimum wage for adult males was increased by \$8.00 to \$67.60 a week and was extended to adult females on the same basis as for adult females employed under Federal awards (*see* page 284). This set the minimum wage for adult females at \$57.50 a week from the pay-period mentioned above.

Western Australia

Since November 1968 legislation has provided that the Western Australian Industrial Commission should review and vary the basic wage once every twelve months unless there are special reasons.

In April 1967 the Industrial Commission first included in State awards provision for a minimum wage for adult males. Increases have since been granted to the minimum wage.

Beginning in October 1970 wage rates for adult males in State awards have been increased so that the rates for ordinary hours of work are 110 per cent of the sum of the specified basic wage and margin. This provision does not apply to adult males in receipt of this allowance through award provisions or otherwise.

From 31 May 1974 the State basic wage was increased by \$4.50 a week for both adult males and adult females, taking the weekly rates to \$48.50 and \$43.50 respectively. From the same date, the minimum wage for adult males was increased by \$7.50 to \$69.00 a week and the concept of the minimum wage was extended to adult females on a similar basis as it was awarded to females under Federal awards (*see* page 284). This set the minimum wage for adult females at \$57.90 a week, i.e. at the same rate as that payable to adult females in Perth under Federal awards.

Tasmania

Subsequent to decisions of the Commonwealth Conciliation and Arbitration Commission in National Wage Cases (*see* page 283), Tasmanian Wages Boards have increased wage rates prescribed in their determinations.

A minimum wage for adult males was introduced into Wages Board determinations in July 1967 and increases have been made to the minimum wage since then.

On 17 May 1974 the Chairman of the State Wages Boards announced increased total wages for adult males and adult females of 2 per cent plus an amount of \$2.50 a week added to the basic wage. This set the basic wage for adult males and adult females at \$46 and \$36.90 a week respectively. These variations operated from the beginning of the first pay-period commencing on or after 23 May 1974. The minimum wage for adult males increased by \$8.00 to \$68.70 a week and was extended to adult females on the same basis as it was awarded to females employed under Federal awards (*see* page 284). The minimum wage for adult females was set at \$58.40 a week, i.e. 85 per cent of the male rate from the above date.

Annual leave

The majority of employees in Australia at present receive at least four weeks paid annual leave.

State Government employees in New South Wales and South Australia were granted four weeks paid annual leave in 1964 and 1971 respectively and Australian Government employees gained the benefit in January 1973. Following the increase in the entitlement for Australian Government employees, State Government employees in Victoria, Queensland and Western Australia were granted four weeks leave from the same date, while Tasmanian State Government employees received the entitlement from October 1972.

In December 1973 Queensland day workers employed under State awards were granted four weeks paid annual leave. Subsequently, workers employed under State awards and Wages Board determinations in New South Wales, South Australia and Tasmania received similar benefits. In Victoria many State Wages Board determinations provide four weeks paid annual leave.

In June 1972 the Commonwealth Conciliation and Arbitration Commission decided that in general, from 1 November 1972, payments for annual leave should include in addition to normal rates of pay, over-award payments for ordinary hours of work, shift-work premiums, service grants, and certain allowances (industry, climatic, regional, etc., leading hand, first-aid, tool and qualification allowances). Generally speaking, employers paying an annual leave bonus would not be required to pay both the bonus and the above payments. Overtime payments, disability rates such as confined spaces and dirty work, and certain allowances (camping, travelling, car and meal allowances) should generally be excluded from annual leave payments.

More detailed information on Federal and State annual leave provisions appears in the *Labour Report*.

Long service leave

Paid long service leave, i.e. leave granted to workers who remain with the one employer over an extended period of time, has been included in the provisions of Federal and State industrial legislation and industrial awards. Most employees in Australia are now entitled to at least thirteen weeks paid long service leave after fifteen years continuous employment with the one employer. For employees in certain industries and for some employees of the Australian and State governments, long service leave entitlements are more generous. In all cases the transfer of ownership of a business does not constitute a break in continuity of service with the same employer. Further information is contained in the *Labour Report*.

INDUSTRIAL DISPUTES

Detailed information, including explanatory notes, definitions, etc., on industrial disputes involving stoppages of work is given in the *Labour Report*. A table showing statistics of industrial disputes for each year from 1913 is contained in the Appendix to *Labour Report* No. 58, 1973. Current statistics are published in the quarterly bulletin *Industrial Disputes* (6.6). Preliminary monthly figures are published in the statement *Industrial Disputes* (6.27).

The statistics of industrial disputes are now compiled according to the Australian Standard Industrial Classification (ASIC), described in the Bureau publication *Australian Standard Industrial Classification (Preliminary Edition)*, 1969, Vol. I. Statistics on this basis for the years 1969 to 1973 were published in *Labour Report* No. 58, 1973. Because of the adoption of ASIC the figures for various industries shown in this Year Book are not directly comparable with those shown in previous issues.

Particulars of all disputes in progress during the year are included in the annual figures, whether the dispute commenced in that year or was in progress at the beginning of the year. Consequently, details of 'the number of disputes' and 'workers involved' in disputes which commenced in any year, and were still in progress during the following year, are included in the figures for both years.

The following table gives, for Australia as a whole, particulars of industrial disputes which were in progress during 1973, classified according to industries.

INDUSTRIAL DISPUTES(a): INDUSTRIES, AUSTRALIA, 1973

ASIC division (b)	ASIC industry (b)	Number of disputes	Workers involved ('000)			Working days lost (^{'000})	Estimated loss in wages (\$'000)
			Directly	Indirectly (c)	Total		
A	Agriculture, forestry, fishing and hunting	3	0.2	..	0.2	1.4	14.3
B	Mining—						
	Coal mining	208	34.3	0.1	34.4	87.5	1,628.6
	Other mining (d)	132	31.6	4.1	35.7	155.3	3,320.2
	<i>Total mining</i>	340	65.9	4.3	70.2	242.8	4,948.8
C	Manufacturing—						
	Food, beverages and tobacco	205	63.4	9.7	73.1	325.6	4,802.1
	Textiles; clothing and footwear—						
	Textiles	7	1.8	0.4	2.2	22.7	259.8
	Clothing and footwear	2	0.2	..	0.2	1.2	17.3
	<i>Total textiles; clothing and footwear</i>	9	2.0	0.4	2.4	23.9	277.0
	Wood, wood products and furniture	21	2.0	0.3	2.3	7.2	121.1
	Paper and paper products, printing and publishing	24	11.3	..	11.3	119.9	1,943.9
	Chemical, petroleum and coal products	58	11.5	0.2	11.7	81.3	1,540.4
	Metal products, machinery and equipment—						
	Basic metal products	130	51.8	1.4	53.2	248.2	4,166.9
	Fabricated metal products	294	36.0	2.7	38.7	155.7	2,645.7
	Transport equipment	218	91.8	6.0	97.8	310.1	5,449.8
	Other machinery and equipment	94	11.4	3.1	14.5	86.8	1,468.0
	<i>Total metal products, machinery and equipment.</i>	736	191.1	13.2	204.3	800.8	13,730.5
	Other manufacturing—						
	Non-metallic mineral products (e)	74	10.5	0.4	10.9	90.3	1,389.3
	Miscellaneous manufac- turing (f)	24	2.7	0.3	3.0	13.3	254.5
	<i>Total other manufacturing</i>	98	13.3	0.7	13.9	103.5	1,643.7
	<i>Total manufacturing</i>	1,151	294.4	24.6	319.0	1,462.2	24,058.7
D	Electricity, gas and water—						
	Electricity and gas	31	18.5	0.9	19.4	43.0	777.9
	Water, sewerage and drainage	8	28.7	..	28.7	36.7	692.6
	<i>Total electricity, gas and water</i>	39	47.2	0.9	48.1	79.7	1,470.5
E	Construction	276	121.0	7.9	128.8	439.3	8,006.3
F	Wholesale and retail trade—						
	Wholesale trade	36	14.6	1.2	15.8	50.4	795.8
	Retail trade	20	12.8	..	12.8	36.5	541.1
	<i>Total wholesale and retail trade</i>	56	27.4	1.2	28.6	86.9	1,336.9

For footnotes see page 289.

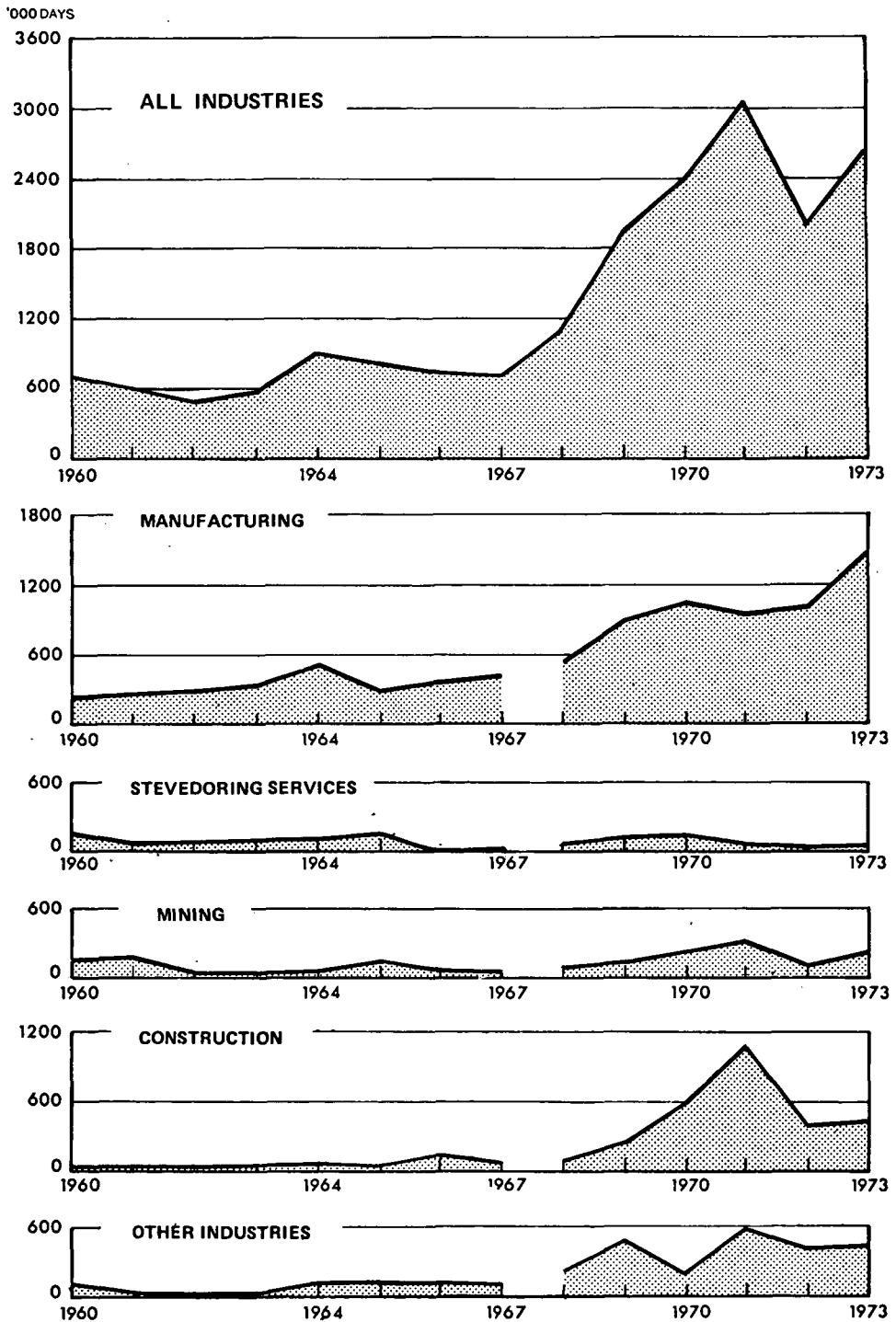
INDUSTRIAL DISPUTES(a): INDUSTRIES, AUSTRALIA, 1973—continued

ASIC division (b)	ASIC industry (b)	Number of disputes	Workers involved ('000)			Working days lost ('000)	Estimated loss in wages (\$'000)
			Directly	Indirectly (c)	Total		
G,H	Transport and storage; communication— Road transport; other transport and storage; communication— Road transport	48	8.9	1.6	10.5	20.3	316.8
	Other transport and storage; communication	26	4.3	*	4.3	6.9	93.3
	<i>Total road transport; other transport and storage; communication</i>	<i>74</i>	<i>13.1</i>	<i>1.6</i>	<i>14.7</i>	<i>27.1</i>	<i>410.1</i>
	Railway transport; air transport— Railway transport	57	20.4	4.3	24.7	32.5	542.3
	Air transport	26	3.4	..	3.4	6.9	249.1
	<i>Total railway transport; air transport</i>	<i>83</i>	<i>23.8</i>	<i>4.3</i>	<i>28.1</i>	<i>39.5</i>	<i>791.5</i>
	Water transport— Stevedoring services	275	53.6	0.1	53.6	49.5	776.7
	Water transport (except stevedoring services)	52	10.8	*	10.8	26.6	463.0
	<i>Total water transport</i>	<i>327</i>	<i>64.4</i>	<i>0.1</i>	<i>64.5</i>	<i>76.1</i>	<i>1,239.7</i>
	<i>Total transport and storage; communication</i>	<i>484</i>	<i>101.3</i>	<i>6.0</i>	<i>107.3</i>	<i>142.7</i>	<i>2,441.2</i>
L	Entertainment, recreation, restaurants, hotels and personal services	44	34.2	0.2	34.4	30.4	470.2
I	Other industries— Finance, insurance, real estate and business services	8	7.5	..	7.5	18.0	272.4
J,K	Public administration and defence; community services— Health	22	8.9	..	8.9	20.0	318.4
	Education, libraries, museums and art galleries	28	27.7	..	27.7	28.0	558.8
	Other (g)	87	22.2	*	22.2	83.2	1,310.0
	<i>Total public administration and defence; community services</i>	<i>137</i>	<i>58.8</i>	<i>*</i>	<i>58.8</i>	<i>131.3</i>	<i>2,187.2</i>
	<i>Total other industries</i>	<i>145</i>	<i>66.3</i>	<i>*</i>	<i>66.3</i>	<i>149.3</i>	<i>2,459.6</i>
	Total	2,538	758.0	45.0	803.0	2,634.7	45,206.5

(a) Refers only to disputes involving a stoppage of work of ten man-days or more. (b) Australian Standard Industrial Classification, see page 287. Statistics in this industry detail are available only for year 1973. (c) Persons thrown out of work at the establishments where the stoppages occurred but who are not themselves parties to the dispute. (d) Includes ASIO sub-divisions 11, 13, 14, 15, 16. (e) Glass, clay and other non-metallic mineral products (ASIC sub-division 28). (f) Leather, rubber and plastic products and manufacturing n.e.c. (ASIC sub-division 34). (g) Includes public administration and defence (ASIC division J); welfare and charitable services and religious institutions (ASIC sub-division 83), and other community services (ASIC sub-division 84). * Less than 50.

INDUSTRIAL DISPUTES: AUSTRALIA

WORKING DAYS LOST - INDUSTRIES



NOTE. A break exists in the series between 1967 and 1968, due to adoption of the Australian Standard Industrial Classification (ASIC).

The following table gives particulars of the number of industrial disputes in each State and Territory, together with the number of workers involved and the losses in working days and wages caused by disputes which were current during each of the years 1969 to 1973.

INDUSTRIAL DISPUTES(a): STATES AND TERRITORIES, 1969 TO 1973

State or Territory	Year	Number	Workers involved ('000)			Working days lost ('000)	Estimated loss in wages (\$'000)
			Directly	Indirectly (b)	Total		
New South Wales	1969	1,133	507.9	13.8	521.7	743.8	8,666.3
	1970	1,484	703.7	36.9	740.6	1,393.6	17,516.5
	1971	1,236	613.1	30.6	643.7	1,887.5	28,218.2
	1972	1,174	509.2	6.9	516.1	866.8	13,957.2
	1973	1,299	370.8	16.7	387.5	1,098.1	18,775.2
Victoria	1969	367	336.7	19.8	356.4	717.2	8,619.6
	1970	447	323.9	9.1	333.0	510.8	6,793.7
	1971	362	366.5	13.5	380.1	689.6	9,726.5
	1972	377	292.0	46.2	338.2	638.4	9,656.0
	1973	431	172.5	17.3	189.8	780.5	13,223.4
Queensland	1969	253	215.0	3.5	218.5	238.6	2,523.6
	1970	378	153.7	5.2	158.9	179.2	2,413.1
	1971	441	167.9	4.3	172.2	271.4	4,009.1
	1972	442	146.3	10.2	156.5	292.2	4,973.4
	1973	378	92.3	4.6	97.0	320.2	5,476.2
South Australia	1969	72	101.1	1.7	102.8	129.0	1,551.4
	1970	156	48.9	8.1	57.0	93.1	1,123.1
	1971	135	59.3	4.8	64.1	111.2	1,484.9
	1972	111	48.2	1.7	49.8	60.9	858.0
	1973	159	55.4	1.5	56.9	130.6	2,144.0
Western Australia	1969	104	57.0	2.1	59.1	101.4	1,284.2
	1970	125	44.4	2.1	46.5	141.1	1,963.3
	1971	132	30.8	5.0	35.8	69.4	1,166.4
	1972	105	24.2	4.1	28.3	94.6	1,677.2
	1973	160	35.4	2.2	37.6	117.3	2,422.3
Tasmania	1969	44	8.6	0.1	8.7	9.9	115.3
	1970	66	12.8	2.0	14.8	32.2	451.1
	1971	46	14.1	0.5	14.7	20.6	317.3
	1972	48	11.7	3.5	15.2	19.2	305.1
	1973	63	15.3	2.2	17.5	140.1	2,322.4
Northern Territory	1969	33	8.0	0.2	8.2	8.7	124.8
	1970	62	11.6	*	11.6	27.0	424.4
	1971	41	9.5	0.1	9.6	15.7	271.4
	1972	32	3.4	*	3.5	15.1	267.1
	1973	31	5.5	..	5.5	18.9	361.2
Australian Capital Territory	1969	8	9.8	*	9.8	9.4	100.6
	1970	20	5.1	*	5.1	16.8	198.2
	1971	11	6.3	..	6.3	3.3	47.4
	1972	9	6.2	*	6.2	23.1	380.4
	1973	17	10.7	0.4	11.1	29.0	481.8
Australia	1969	2,014	1,244.0	41.2	1,285.2	1,958.0	22,985.7
	1970	2,738	1,304.2	63.3	1,367.4	2,393.7	30,883.3
	1971	2,404	1,267.7	58.8	1,326.5	3,068.6	45,241.3
	1972	2,298	1,041.2	72.6	1,113.8	2,010.3	32,074.4
	1973	2,538	758.0	45.0	803.0	2,634.7	45,206.5

(a) Refers only to disputes involving a stoppage of work of ten man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but who are not themselves parties to the dispute.

* Less than 50.

Duration of disputes

The duration of each industrial dispute involving a loss of work, i.e. the time between the cessation and resumption of work, has been calculated in working days, exclusive of Saturdays, Sundays and holidays, except where the establishment involved carries on a continuous process (e.g. metal smelting and cement manufacture).

The following table shows, for the year 1973, industrial disputes classified according to duration in working days.

INDUSTRIAL DISPUTES(a): DURATION, AUSTRALIA, 1973

Duration (working days)	Manufacturing				Transport and storage; communication			Other industries (c)	All industries
	Mining		Metal products, machinery and equipment (b)	Other	Construction	Stevedoring services	Other		
	Coal	Other							
NUMBER OF DISPUTES									
Up to 1 day	92	46	273	109	58	199	89	132	998
Over 1 to 2 days	44	24	106	70	36	52	50	55	437
Over 2 to 3 days	36	10	70	60	36	10	34	24	280
Over 3 to less than 5 days	13	17	91	46	31	6	9	22	235
5 to less than 10 days	16	20	121	74	60	6	22	26	345
10 to less than 20 days	5	10	58	43	35	2	4	25	182
20 to less than 40 days	2	5	12	12	13	..	1	3	48
40 days and over . . . . .	..	..	5	1	7	..	..	..	13
Total	208	132	736	415	276	275	209	287	2,538
WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)									
Up to 1 day	15.6	11.9	102.5	32.1	81.1	41.2	23.1	121.0	428.5
Over 1 to 2 days	5.5	6.5	18.8	15.7	3.2	7.3	23.0	29.9	110.0
Over 2 to 3 days	7.7	1.8	14.4	9.8	7.6	1.7	3.5	3.8	50.4
Over 3 to less than 5 days	2.1	6.3	17.6	6.2	8.4	2.0	0.8	3.5	47.0
5 to less than 10 days	2.2	5.9	35.4	27.0	4.2	1.2	2.8	9.5	88.1
10 to less than 20 days	1.1	1.7	10.4	18.6	18.7	0.2	0.4	9.5	60.7
20 to less than 40 days	0.2	1.5	1.4	5.2	5.3	..	0.1	0.4	14.0
40 days and over . . . . .	..	..	3.8	0.1	0.4	..	..	..	4.2
Total	34.4	35.7	204.3	114.7	128.8	53.6	53.7	177.7	803.0
WORKING DAYS LOST ('000)									
Up to 1 day	15.5	13.5	54.0	28.4	74.2	19.3	14.4	87.8	307.0
Over 1 to 2 days	9.7	10.0	28.8	26.2	5.3	10.4	41.9	49.7	181.9
Over 2 to 3 days	20.6	6.9	36.6	27.3	19.7	3.8	9.3	10.1	134.3
Over 3 to less than 5 days	8.0	22.7	70.1	24.5	33.4	7.1	3.2	14.3	183.4
5 to less than 10 days	15.6	42.0	270.1	208.5	29.6	6.9	17.4	67.9	658.0
10 to less than 20 days	11.5	22.5	131.4	232.9	146.9	1.9	5.6	108.7	661.3
20 to less than 40 days	6.7	37.8	35.7	111.9	113.3	..	1.5	9.2	316.0
40 days and over . . . . .	..	..	174.1	1.7	17.0	..	..	..	192.8
Total	87.5	155.3	800.8	661.4	439.3	49.5	93.2	347.6	2,634.7
ESTIMATED LOSS IN WAGES (\$'000)									
Up to 1 day	270.4	288.2	914.0	436.7	1,339.3	300.1	235.1	1,581.0	5,364.9
Over 1 to 2 days	191.0	229.8	484.0	406.8	97.6	159.4	679.1	827.8	3,075.5
Over 2 to 3 days	351.3	147.2	636.1	404.6	381.1	57.9	144.5	158.2	2,280.9
Over 3 to less than 5 days	158.8	536.5	1,188.6	392.5	597.9	112.4	51.2	244.8	3,282.8
5 to less than 10 days	291.4	877.3	4,525.2	3,240.0	596.4	123.9	417.4	1,048.6	11,120.2
10 to less than 20 days	246.3	468.7	2,314.2	3,482.4	2,100.6	22.9	113.3	1,704.7	10,453.1
20 to less than 40 days	119.4	772.4	567.5	1,940.3	2,602.8	..	24.0	186.4	6,212.7
40 days and over . . . . .	..	..	3,100.8	24.9	290.7	..	..	..	3,416.4
Total	1,628.6	3,320.2	13,730.5	10,328.2	8,006.3	776.7	1,664.5	5,751.5	45,206.5

(a) Refers only to disputes involving a stoppage of work of ten man-days or more. Industries are classified according to Australian Standard Industrial Classification—see page 287. (b) Includes ASIC sub-divisions 29, 31, 32, 33. (c) Not comparable with *Other industries* shown in corresponding tables in previous issues of the Year Book.

Causes of disputes

In the following table industrial disputes are classified according to cause, that is, the direct causes of stoppages of work. Causes are grouped as follows.

Wages—claims involving general principles relating to wages, including combined claims relating to wages, hours or conditions of work. *Hours of work*—claims involving general principles relating to hours of work. *Leave, pensions, compensation provisions, etc.*—claims involving general principles relating to these provisions. *Managerial policy*—disputes concerning managerial policy of employers including computation of wages, hours, leave, etc. in individual cases; docking pay, etc.; dismissals, etc.; principles of promotion, etc.; employment of particular persons and personal disagreements; production limitations, etc. *Physical working conditions*—disputes concerning physical working conditions including safety issues; protective clothing and equipment, etc.; amenities; shortage of, or condition of, equipment or material; new production methods, etc.; arduous physical tasks, etc. *Trade unionism*—disputes concerning employment of non-unionists; inter-union and intra-union disputes; sympathy stoppages; recognition of union activities, etc. *Other*—disputes concerning protests directed against persons or situations other than those dealing with employer-employee relationship; non-award public holidays; accidents and funerals; no reason given for stoppage; etc.

For details of classifications causes see bulletin *Industrial Disputes* (6.6.).

INDUSTRIAL DISPUTES(a): CAUSES, AUSTRALIA, 1973

Cause of dispute (b)	Manufacturing				Transport and storage; communication			Other industries (d)	All industries
	Mining		Metal products, machinery and equipment (c)	Other	Construction	Stevedoring services	Other		
	Coal	Other							
NUMBER OF DISPUTES									
Wages	32	40	375	241	122	18	74	136	1,038
Hours of work	1	..	2	5	4	3	8	20	43
Leave, pensions, compensation provisions, etc.	3	..	7	10	6	3	5	2	36
Managerial policy	77	38	182	102	77	98	65	81	720
Physical working conditions	39	24	48	30	28	87	24	15	295
Trade unionism	38	24	97	26	35	27	29	29	305
Other	18	6	25	1	4	39	4	4	101
Total	208	132	736	415	276	275	209	287	2,538

WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)

Wages	4.0	9.1	112.6	72.4	37.4	4.6	24.6	137.0	401.6
Hours of work	0.2	..	0.1	4.7	0.6	0.2	1.9	16.7	24.3
Leave, pensions, compensation provisions, etc.	0.3	..	3.0	6.9	55.8	0.4	0.5	2.0	69.0
Managerial policy	12.2	11.2	37.6	19.9	20.8	14.0	8.6	17.1	141.5
Physical working conditions	8.7	6.3	11.8	6.6	3.1	17.0	12.0	1.1	66.7
Trade unionism	4.8	6.7	28.1	3.9	5.7	4.7	5.7	3.5	63.1
Other	4.2	2.4	11.0	0.3	5.4	12.8	0.4	0.3	36.8
Total	34.4	35.7	204.3	114.7	128.8	53.6	53.7	177.7	803.0

WORKING DAYS LOST ('000)

Wages	8.9	73.3	636.4	537.6	161.0	1.9	45.6	281.2	1,745.9
Hours of work	0.5	..	0.4	2.8	1.2	0.1	3.1	14.1	22.2
Leave, pensions, compensation provisions, etc.	0.6	..	2.1	10.9	51.8	0.1	0.6	2.0	68.1
Managerial policy	41.2	44.4	79.9	76.1	80.9	12.6	17.8	34.5	387.3
Physical working conditions	20.3	20.8	33.7	16.5	23.3	16.8	20.4	1.1	153.0
Trade unionism	10.2	13.9	41.5	17.2	14.5	8.1	5.4	14.4	125.2
Other	5.8	3.3	6.8	0.1	106.6	9.9	0.4	0.4	133.0
Total	87.5	155.3	800.8	661.4	439.3	49.5	93.2	347.6	2,634.7

(a) Refers only to disputes involving a stoppage of work of ten man-days or more. Industries are classified according to Australian Standard Industrial Classification—see page 287. (b) For nature of classification, see above.

(c) Includes ASIC sub-divisions 29, 31, 32, 33. (d) Not comparable with *Other industries* shown in corresponding tables in previous issues of the Year Book.

Methods of settlement of disputes

The following table shows particulars of industrial disputes for 1973, classified according to method of settlement. These statistics relate to the method directly responsible for *ending the stoppage of work*. For more information concerning this classification of methods of settlement see the quarterly bulletin, *Industrial Disputes* (6.6).

INDUSTRIAL DISPUTES(a): METHODS OF SETTLEMENT, AUSTRALIA, 1973

Method of settlement	Mining		Manufacturing		Construc- tion	Transport and storage; communication		Other industries (c)	All industries
	Coal	Other	Metal products, machinery and equipment (b)	Other		Steve- doring services	Other		
NUMBER OF DISPUTES									
1. Negotiation	59	46	292	160	94	58	48	58	815
2. Mediation	2	1	7	7	3	1	1	4	26
3. State legislation—									
(a) Under State conciliation, etc. legislation	8	28	47	70	45	1	19	57	275
(b) Intervention, etc. of State government officials	..	..	..	..	..	..	..	..	..
4. Federal and joint Federal-State legislation—									
(a) Industrial Tribunals under—									
(i) Conciliation and Arbitration Act	3	9	68	46	40	2	18	20	206
(ii) Coal Industry Acts	10	..	..	..	..	..	..	..	10
(iii) Stevedoring Industry Act	..	..	..	..	..	1	..	..	1
(iv) Other Acts	..	..	..	..	..	..	..	..	..
(b) Intervention, etc. of Federal government officials	..	..	..	..	..	..	..	..	..
7. Resumption without negotiation	126	48	322	132	94	212	123	148	1,205
Total	208	132	736	415	276	275	209	287	2,538
WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)									
1. Negotiation	7.4	8.2	43.3	40.0	17.5	9.2	6.9	23.7	156.0
2. Mediation	0.2	0.1	1.3	2.6	0.1	0.1	*	1.2	5.6
3. State legislation—									
(a) Under State conciliation, etc. legislation	1.8	11.9	8.1	14.2	7.7	0.2	0.8	18.5	63.2
(b) Intervention, etc. of State government officials	..	..	..	..	..	..	..	..	..
4. Federal and joint Federal-State legislation—									
(a) Industrial Tribunals under—									
(i) Conciliation and Arbitration Act	0.5	1.6	19.5	15.9	2.5	0.3	3.0	6.1	49.4
(ii) Coal Industry Acts	1.8	..	..	..	..	..	..	..	1.8
(iii) Stevedoring Industry Act	..	..	..	..	..	*	..	..	*
(iv) Other Acts	..	..	..	..	..	..	..	..	..
(b) Intervention, etc. of Federal government officials	..	..	..	..	..	..	..	..	..
7. Resumption without negotiation	22.8	14.0	132.1	42.0	101.0	43.8	43.0	128.2	527.0
Total	34.4	35.7	204.3	114.7	128.8	53.6	53.7	177.7	803.0
WORKING DAYS LOST ('000)									
1. Negotiation	20.9	30.3	202.7	263.0	130.9	11.5	15.3	87.0	761.6
2. Mediation	0.5	0.1	8.9	30.6	2.9	*	0.2	2.9	46.2
3. State legislation—									
(a) Under State conciliation, etc. legislation	8.8	79.9	54.6	116.6	36.1	1.8	3.6	91.7	393.1
(b) Intervention, etc. of State government officials	..	..	..	..	..	..	..	..	..
4. Federal and joint Federal-State legislation—									
(a) Industrial Tribunals under—									
(i) Conciliation and Arbitration Act	3.3	19.8	272.6	133.3	32.8	1.7	12.7	31.0	507.1
(ii) Coal Industry Acts	14.7	..	..	..	..	..	..	..	14.7
(iii) Stevedoring Industry Act	..	..	..	..	..	*	..	..	*
(iv) Other Acts	..	..	..	..	..	..	..	..	..
(b) Intervention, etc. of Federal government officials	..	..	..	..	..	..	..	..	..
7. Resumption without negotiation	39.3	25.3	261.9	118.0	236.6	34.6	61.4	135.0	912.0
Total	87.5	155.3	800.8	661.4	439.3	49.5	93.2	347.6	2,634.7

(a) Refers only to disputes involving a stoppage of work of ten man-days or more. Industries are classified according to Australian Standard Industrial Classification— see page 287. (b) Includes ASIC sub-divisions 29, 31, 32, 33. (c) Not comparable with *Other industries* shown in corresponding tables in previous issues of the Year Book. * Less than 50.

WORKERS' COMPENSATION LEGISLATION

A conspectus of the principal provisions of Workers' Compensation Acts and Ordinances in force in Australia at 31 December 1973 is included in *Labour Report* No. 58, 1973, pages 235-47.

LABOUR ORGANISATIONS

Labour organisations in Australia

The figures shown in this section are prepared from a special collection of membership of labour organisations at 31 December each year. The affairs of single unions are not disclosed in the published results and this has assisted in securing complete information. The Bureau is indebted to the secretaries of trade unions for their co-operation in supplying information. More detailed statistics appear in the annual *Labour Report*. Current figures are published in an annual bulletin, *Trade Union Statistics: Australia* (6.24).

Trade unions

For the purpose of these statistics a trade union is defined as an organisation consisting predominantly of employees and whose principal activities include the negotiation of rates of pay and conditions of employment for its members.

The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organisation, which, in its turn, may be a branch of an international body. Broadly speaking, there are four distinct classes of labour organisations: (a) the local independent, (b) the State, (c) the interstate, and (d) the Australasian or international; but a number of variations occur from each of these classes. The schemes of organisation of interstate or federated unions vary greatly in character. In some unions the State organisations are bound together under a system of unification with centralised control, while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. Statistics relating to interstate or federated trade unions are shown in a table on page 296.

Returns showing membership by States and Territories at 31 December each year are obtained for all trade unions and employee organisations. The following table shows the position at the end of each of the years 1971 to 1973.

TRADE UNIONS: NUMBER AND MEMBERSHIP, STATES AND TERRITORIES
DECEMBER 1971 TO 1973

State or Territory	Number of separate unions			Number of members ('000)			Percentage increase in membership(a)		
	1971	1972	1973	1971	1972	1973	1971	1972	1973
New South Wales	204	198	192	971.6	988.4	1,032.0	6.5	1.7	4.4
Victoria	158	158	159	617.7	652.1	681.6	4.4	5.6	4.5
Queensland	140	138	140	337.6	343.5	362.1	2.2	1.7	5.4
South Australia	139	132	135	215.9	223.7	241.8	6.5	3.6	8.1
Western Australia	154	151	154	178.3	184.8	197.4	5.7	3.6	6.8
Tasmania	111	112	118	75.2	80.5	84.1	1.8	7.1	4.5
Northern Territory(b).	51	55	58	8.1	11.1	13.5	(b)	(b)	(b)
Australian Capital Territory(b)	82	84	87	32.2	39.7	47.5	(b)	(b)	(b)
Australia	(c)303	(c)305	(c)294	2,436.6	2,523.7	2,659.9	5.3	3.6	5.4

(a) On preceding year. (b) Some unions in the Territories are affiliated with State organisations and their membership is reported under the heading of that State. More accurate reporting of membership by location by trade unions over the years is reflected in the annual figures for the Territories and this affects their comparability over time. (c) Without interstate duplication—see below.

In the preceding table, under the heading 'Number of separate unions', a union reporting members in a State or Territory is counted as one union within that State or Territory. The figures do not add to the Australian total (shown in the last line) because a union represented in more than one State or Territory is included in the figure for each State or Territory in which it is represented, but is counted only once in the Australian total.

A table showing the number and membership of trade unions in Australia for each year since 1912 is included in the Appendix to *Labour Report* No. 58, 1973.

Number of trade union members and proportion of wage and salary earners. The following table shows the approximate percentages of wage and salary earners in employment who are members of trade unions. The estimates of total wage and salary earners have been obtained by adding the number of employees in agriculture and in private domestic service recorded at the June 1966 population census to the estimates of employees in all other industries at the end of each year. For this reason, and also because the membership of trade unions includes some persons not in employment, the percentages shown in the table are approximations. The percentages shown in this table are not directly comparable with those shown in Year Book No. 55, 1969 and earlier issues because the present estimates are based on a new series of employment estimates as from June 1966 (see Chapter 20, Employment and Unemployment). The difference is of most significance for female employees as the current employment estimates include a considerable number of part-time employees who had previously been excluded.

TRADE UNIONS: NUMBER OF MEMBERS AND PROPORTION OF TOTAL WAGE AND SALARY EARNERS, AUSTRALIA(a)

End of December—	Number of members (‘000)			Proportion of total wage and salary earners(a) (Per cent)		
	Males	Females	Persons	Males	Females	Persons
1969	1,717.5	521.6	2,239.1	58	36	50
1970	1,750.6	564.1	2,314.6	57	36	50
1971	1,818.2	618.3	2,436.6	59	39	52
1972	1,827.4	696.2	2,523.7	58	43	53
1973	1,904.9	755.0	2,659.9	59	43	54

(a) See text above.

Interstate or federated trade unions. The following table gives particulars of the number and membership of interstate or federated trade unions in 1973.

INTERSTATE OR FEDERATED TRADE UNIONS(a): AUSTRALIA, DECEMBER 1973

	Unions operating in—					Total
	2 States	3 States	4 States	5 States	6 States	
Number of unions	10	7	14	27	86	144
Number of members (‘000)	50.6	64.6	101.5	327.7	1,937.1	2,481.4

(a) Certain unions in this group have, in addition to branches in the States, branches in the Northern Territory or the Australian Capital Territory or both.

Employer and employee organisations registered under Industrial Arbitration Acts, etc.

The Federal *Conciliation and Arbitration Act* 1904–1973 and a number of State industrial arbitration acts provide for the registration of employer and employee organisations as outlined below. For further details see the annual *Labour Report*. In general, registration is necessary before an organisation may appear before the relevant industrial arbitration tribunal.

In Victoria and Tasmania where wages and conditions of work in the State sphere are determined by Wages Boards there is no provision in industrial arbitration legislation for registration of trade unions or employer organisations.

Federal. At the end of 1973 the number of employers' organisations registered under the provisions of the *Conciliation and Arbitration Act* 1904–1973 was 81. The number of unions registered at the end of 1973 was 149, with membership of 2,266,400, representing 85 per cent of the total membership of all trade unions in Australia. Lists of organisations of employees and employers registered under this Act are contained in the *Industrial Information Bulletin*, Vol. 29 No. 1, January 1974 published by the Department of Labor and Immigration.

New South Wales. At 30 June 1973 there were 125 employee unions and 288 employer unions registered under provisions of the Industrial Arbitration Act, 1940–1973, and 138 employee unions, 17 employer unions, and 1 other union registered under the Trade Union Act, 1881–1972. Lists of unions registered under these Acts are included in the *New South Wales Industrial Gazette* (see Vol. 190 Part 1 for details at 30 June 1973).

Queensland. At 31 December 1973 there were 75 employee unions registered under the *Industrial Conciliation and Arbitration Act 1961-1973* with a reported membership of 314,306. At the same date 40 employer unions with a reported membership of 39,719 employers were registered. Lists of registered employee and employer unions are published in the annual report of the President of the Industrial Court.

South Australia. At the end of December 1973 there were 3 employer associations and 55 employee associations registered under the provisions of the *Industrial Conciliation and Arbitration Act 1972*. Membership of these employee associations totalled 146,148.

Western Australia. At 30 June 1973 there were 92 unions of workers, with an aggregate membership of 152,812, registered under the provisions of the *Industrial Arbitration Act, 1912-1973*. At the same date there were 13 registered unions of employers with a reported aggregate membership of 1,777 employers. Lists of registered unions of workers and of employers together with membership figures are published in the *Western Australian Industrial Gazette* (see Vol. 53 page 1380).

Central labour organisations

Trades and Labour Councils. Delegate organisations, usually known as Trades Hall Councils or Labour Councils and consisting of representatives of a number of trade unions, have been established in the capital cities and in a number of other centres in each State. In the centres where these councils exist most unions or local branches operating in the district are affiliated. The district councils obtain their finance by means of a *per capita* tax on members of affiliated unions.

At 31 December 1973 there were 48 trades and labour councils in Australia, including councils that were affiliated with, or were branches of, a large State or district council. In New South Wales there were 10 trades and labour councils, 8 in Victoria, 13 in Queensland, 7 in South Australia, 3 in Western Australia, 6 in Tasmania, and 1 in the Australian Capital Territory.

As well as trades and labour councils there are councils organised on trade lines and composed of delegates from separate unions whose members' interests are closely connected by reason of their occupations. Delegate councils of unions connected directly or indirectly with the metal trades, or with the building trades, are examples of such organisations.

Australian Council of Trade Unions. A central labour organisation, now called the Australian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the trade unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May 1927. The A.C.T.U. consists of affiliated unions and approved State Trades and Labour Councils and Provincial Councils. The State Trades and Labour Council in each State is the State Branch of the A.C.T.U. and it has the right to appoint one representative to act on the executive of the Council. In addition to the four A.C.T.U. officers and representatives of the State Branches of the A.C.T.U., seven delegates are elected by and from Congress, one from each of the following industry groups: Building, Food and distributing services, Manufacturing, Metal Services, Transport, and the A.W.U. group. The President and Secretary are full-time officials and, with the two Vice-Presidents, are elected by and from the Australian Congress of Trade Unions. The ordinary meetings of Congress are held in alternate years. The 1973 Biennial Congress was held in August-September. Special meetings of Congress are held whenever deemed advisable by decision of the executive, as approved by the majority of its branches, or by resolution supported by unions representing one-third of the total membership of the A.C.T.U.

For further particulars see the annual *Labour Report*.

Other. In addition to the A.C.T.U., other central labour organisations exist. These include the *Australian Council of Salarked and Professional Associations*, the *Council of Commonwealth Public Service Organisations*, and the *Council of Professional Associations*. Details of these councils will be found in *Labour Report* No. 58, 1973, pages 254-55.

International Labour Organisation

The International Labour Organisation (I.L.O.) was established on 11 April 1919, as an autonomous institution associated with the League of Nations. Its original constitution was adopted as Part XIII of the Treaty of Versailles. With certain amendments this constitution remains the charter of I.L.O. to this day, bringing governments, employers and trade unions together to discuss international labour and social problems. A new definition of the aims and purposes of the I.L.O., known as the Declaration of Philadelphia, was added to the constitution at the 1944 Session of the International Labour Conference and this asserted the responsibility of I.L.O. in combating poverty and insecurity. In 1946 the Organisation became the first of the specialised agencies of the United Nations. Under the terms of agreement, the United Nations recognises the I.L.O. as a specialised agency having responsibility in the field defined by its constitution, which embraces labour conditions, industrial relations, employment organisation, social security and other aspects of social policy.

The Organisation has three basic parts. These are the International Labour Conference, its highest authority, which usually meets annually; the Governing Body, its executive council, which usually meets three times each year; and the International Labour Office, which provides the Secretariat of the Organisation. The Conference is composed of delegations from the member States of the Organisation. At the end of 1973 there were 123 member States, each of which is entitled to be represented by four delegates—two representing the government, one representing employers and one representing workers, together with their advisers. Each delegate speaks and votes independently, so that all points of view in each country are fully expressed. The Governing Body consists of the representatives of twenty-four governments, and twelve employers' and twelve workers' representatives. Particulars are given in *Labour Report* No. 57, 1972 of the proceedings of International Labour Conferences up to the 57th Session, held in Geneva in June 1972. For details of I.L.O. conventions ratified by Australia, see *Labour Report* No. 58, 1973, pages 258–59.

PRICES JUSTIFICATION TRIBUNAL

General

The Prices Justification Tribunal was established in August 1973 under the provisions of the *Prices Justification Act 1973–1974*. The Tribunal is a fully discretionary body appointed under the Act to consider the justification for proposed price increases put to it by companies subject to the Act. It is not a price regulating authority.

Organisation

The Tribunal consists of a Chairman and such number of other members as are from time to time appointed in accordance with the Act. The *Office of the Prices Justification Tribunal* comprises the staff required to assist the Tribunal in the performance of its functions, and consists of persons appointed or employed under the *Public Service Act 1922–1973*.

Further information on the Prices Justification Tribunal is contained in its First Annual Report to Parliament.

Activities in 1973–74

In the period from 1 August 1973 to 30 June 1974 the Tribunal processed 3,859 Notices of Proposed Prices. Of these, proposed prices were approved on the basis of the original notice, without public inquiry, in 3,356 cases. In 15 cases notices were heard at Public Inquiry, 421 notices were approved on the basis of substitute notices for lower price increases, 36 notices were withdrawn by companies and 31 notices were under investigation as possible public inquiries.

Legislative provisions

Section 16 of the *Prices Justification Act 1973–1974* provides that:

'The functions of the Tribunal are to inquire and report to the Minister, in any case where the Tribunal is required to do so by the Minister or the Tribunal considers that it is desirable to do so, whether the price or prices at which a company or companies (whether a prescribed company or prescribed companies or not) supplies or supply, or proposes or propose to supply, goods or services of a particular description is or are justified and, if the Tribunal is of the opinion that the price or any of the prices is not justified, what lower price for the supply by the company or companies concerned of goods or services of that description would be justified.'

Three important features of the legislation are:

- (a) A Tribunal inquiry may be initiated by the Minister.
- (b) The Tribunal may initiate inquiries in its own right.
- (c) Following an inquiry, the Tribunal is required to report whether it is of the opinion that the price at which the company supplies or proposes to supply the goods in question is justified and if not what lower price would be justified.

Other important features of the legislation include the following:

- (a) The legislation applies to prescribed companies which are companies or groups of related companies with an annual turnover in excess of \$20 million. Such companies are required to notify the Tribunal in writing of any proposal to increase the prices of goods or services supplied by that company.
- (b) Companies whose annual turnover does not exceed \$20 million are not required to notify the Tribunal of proposed price increases but the Tribunal may investigate the prices charged by such companies on its own initiative.

- (c) The Tribunal must notify a company within 21 days of the receipt of a notice of proposed prices if it intends to proceed to a public inquiry. If the period of 21 days has elapsed or the Tribunal has notified the company that it does not intend to hold an inquiry, the company may put the proposed prices into operation.
- (d) In the event of a public inquiry the prices of a company's goods and services referred to in its notice must not be raised until the Tribunal has completed the inquiry and its report has been made public by the Minister.

Guidelines and criteria

The legislation does not provide guidelines or criteria for the Tribunal to observe in its consideration of price proposals. The development of such guidelines and criteria has rested with the Tribunal. In considering notices of proposed price increases the Tribunal has regard for all relevant aspects and particularly the following:

- (a) Costs which have actually been incurred.
- (b) The distinction between 'avoidable' and 'unavoidable' cost increases.
- (c) Wage increases which are over-award wage agreements, consent agreements or other arrangements. In this regard the Tribunal places responsibility on companies to justify recoupment in prices of additional costs resulting from such agreements or arrangements on wage rates.
- (d) Prices should reflect a reasonable allowance for productivity achievements to offset increases in costs.
- (e) Regard is taken of the level of profitability of the company and its capacity to maintain a reasonable level of investment and growth.

Notices of proposed prices

Section 18 of the Prices Justification Act requires companies to submit a notice in writing to the Tribunal giving details of proposed increases in prices to apply to goods or services supplied by the company. There are four broad categories of treatment of a company's notification of price increases.

- (a) Where notified price increases are accepted by the Tribunal the company is forwarded a *Notice of No Inquiry* and may proceed with the proposed price increases.
- (b) If the Tribunal considers that a lower price than that proposed by a company is just, it may invite the company to discuss the matter in private session. If agreement is reached on a level of price increase then a *Substituted Price Notice* is issued and the company may proceed with the agreed price increase.
- (c) If a company chooses to pursue a price proposal discussed in private session but for which agreement was not forthcoming, the Tribunal may decide to consider the matter in a *Public Inquiry*.
- (d) The Prices Justification Act, Section 18 (8), provides for the Tribunal to give an exemption to a company in respect of its obligation to notify the Tribunal of proposed increases in prices of goods or services supplied. Such exemptions are given as a device to enable companies to proceed with price increases in cases where the Tribunal is satisfied the conditions governing the exemption and the competitive forces in the market place are sufficient to ensure that prices charged will be justified.

1982, p. 106. The author is grateful to the anonymous referees for their comments on an earlier draft of this paper.

1. The term 'intentional' is used in the sense of Davidson (1984, p. 187). It is also used in the sense of Lewis (1975, p. 154), who defines it as follows: 'An agent has an intention to do A if and only if he believes that he will do A and he desires to do A'. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

2. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

3. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

4. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

5. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

6. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

7. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

8. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

9. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

10. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

11. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

12. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

13. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

14. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

15. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

16. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

17. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

18. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

19. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

20. The author is grateful to the anonymous referees for pointing out that this definition is not sufficient to distinguish intentions from mere desires.

CHAPTER 11

OVERSEAS TRANSACTIONS

This chapter includes statistics of overseas trade, balance of payments, and overseas investment by private investors, but because of limitations of space the statistics are, in the main, restricted to summarised form. For detailed information see the *Annual Bulletin of Overseas Investment, Australia* (5.20) and the associated occasional bulletin *Overseas Borrowings by Companies in Australia* (5.39) (latest issue December quarter 1973); and the other annual bulletins *Overseas Trade* (preliminary (8.15) (8.16) and final (8.11)), *Australian Exports, Country by Commodity* (8.4), *Australian Imports, Country by Commodity* (8.19), *Imports Cleared for Home Consumption* (issued in two parts) (8.7) and the annual bulletin *Balance of Payments* (8.1). Preliminary information is available in summary form in the statements *Balance of Payments—Quarterly Summary* (8.2), *Overseas Investment—Preliminary Bulletin* (annual) (5.21), *Overseas Borrowings by Companies in Australia* (preliminary) (5.41), *Australian Overseas Trade—Exports and Imports* (8.12) (monthly), *Overseas Trade—Exports by Commodity Divisions* (monthly) (8.18), and *Overseas Trade—Imports by Commodity Divisions* (monthly) (8.13). Current information is included in the *Quarterly Summary of Australian Statistics* (1.3), the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5), and in more detail in the *Monthly Bulletin of Overseas Trade Statistics* (8.9) (8.10). There are also the following additional mimeographed statements: *Exports of Principal Products of Australian Origin* (monthly) (8.5), *Imports of Assembled New Motor Cars* (monthly) (8.8), *Exports by Mode of Transport* (quarterly) (8.25), and *Trade of Australia with Eastern Countries* (annually) (8.17). Additional unpublished details of exports and imports can be supplied on request.

A subscription service is available from this Bureau to provide for the detailed requirements of individual users of overseas trade statistics. These special periodical statements are obtainable monthly or quarterly and show trade according to items of the Australian Export and Import Commodity Classifications or statistical key code dissections of Australian Customs Tariff items. A nominal charge is made which varies depending on the amount of detail required.

OVERSEAS TRADE

Constitutional provisions and legislation

Constitutional provisions

By the Commonwealth of Australia Constitution Act, Section 51 (1), the power to make laws with respect to trade and commerce with other countries was conferred on the Australian Parliament. Under Section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1 January 1901. Other references to trade and commerce are contained in Sections 87 to 95 of the Constitution (see pages 17-18).

Australian Government legislation

Australian Government legislation affecting overseas trade includes: the Customs Act, the Customs Tariff and the Customs Tariff (Dumping and Subsidies) Act. The Customs Act is the administrative Act under which the Department of Customs and Excise operates. The Customs Tariff provides the statutory authority for imposing the actual rates of duty operative from time to time, while the Customs Tariff (Dumping and Subsidies) Act provides protection for Australian industry against various forms of unfair trading.

The Customs Tariff

The first Australian Customs Tariff was introduced by Resolution on 8 October 1901, from which date uniform duties came into effect throughout Australia. The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to certain imports from countries of the Commonwealth and certain developing countries. Duties are imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are a major source of revenue but in its protective character the tariff has an important influence on the Australian economy.

The present tariff provides for general and preferential rates of duty, and its structure is based on the 'Brussels Nomenclature' which has its origins in the Convention on Nomenclature for the Classification of Goods in Customs Tariffs, signed in Brussels on 15 December 1950. Australia has operated a 'Brussels-type' tariff since 1 July 1965.

Preferential rates. Preferential rates apply to goods the produce or manufacture of the United Kingdom, Ireland, Canada, New Zealand, and Papua New Guinea, and certain goods the produce or manufacture of specified countries, provided that such goods comply with the laws in force at the time affecting the grant of preference. With the termination on 1 February 1973 of the United Kingdom-Australia Trade Agreement existing preferential rates applicable to United Kingdom goods are under review.

The following are the rules of origin for preference purposes as defined in the Customs Act.

151.—(1.) For the purposes of this Act and the *Customs Tariff* 1966–1972 (other than section twenty of the last-mentioned Act), goods shall be treated as the produce of a country if they are unmanufactured raw products of the country.

(2.) For the purposes of this Act and the *Customs Tariff* 1966–1972 (other than section twenty or a direction under section thirty-three "C" of the last-mentioned Act), goods shall be treated as the manufacture of a country—

(a) if the goods were wholly manufactured in the country from materials of one or more of the following classes:

- (i) unmanufactured raw products;
- (ii) materials wholly manufactured in the country or in Australia, or in the country and in Australia; and
- (iii) imported materials that the Minister has, in relation to the country, determined, by notice published in the *Gazette*, to be manufactured raw materials; or

(b) if the goods were partly manufactured in the country, the process last performed in the manufacture of the goods was performed in the country and—

- (i) not less than three-quarters, or, in a case where the country is New Zealand, one-half of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and Australia;
- (ii) in a case where the goods are goods of a class or kind not commercially manufactured in Australia, not less than one-quarter of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and Australia; or
- (iii) in a case where the country is New Zealand, not less than three-quarters of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of New Zealand and the United Kingdom or of New Zealand, Australia and the United Kingdom.

(3.) For the purposes of a direction under section thirty-three "C" of the *Customs Tariff* 1966–1972 goods shall be treated as the manufacture of a country if—

(a) the process last performed in the manufacture of the goods was performed in the country; and

(b) not less than one-half of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and one or more of the following countries, that is to say, Australia and countries that, at the time the goods are entered for home consumption, are less developed countries, other than a country that, by virtue of a direction under sub-section (2) of section eleven of the *Customs Tariff* 1966–1972 is not to be treated as a less developed country in relation to the class of goods in which the goods are included.

151A.—(1.) For the purposes of this Act and the *Customs Tariff* 1966–1972 (other than section twenty or a direction under section thirty-three "C" of the last-mentioned Act), goods shall not be treated as the produce or manufacture of the United Kingdom, Canada, New Zealand, Ireland, Malawi, Southern Rhodesia*, Zambia, the Territory of Papua or the Territory of New Guinea unless they have been shipped from that country to Australia and, except where the Collector is satisfied that the intended destination of the goods when originally shipped from that country was Australia, have not been transhipped.

(2.) The last preceding sub-section does not apply—

(a) to goods the produce or manufacture of a country other than New Zealand that are imported into Australia from New Zealand; or

* Under the United Nations Security Council's resolutions on Southern Rhodesia trade with that country is prohibited.

(b) to goods the produce or manufacture of a country other than the Territory of Papua or the Territory of New Guinea that are imported into Australia from the Territory of Papua or the Territory of New Guinea.

(3.) For the purposes of a direction under section thirty-three "C" of the *Customs Tariff* 1966–1972, goods shall not be treated as the produce or manufacture of a country unless they have been shipped from that country to Australia and, except where the Collector is satisfied that the intended destination of the goods when originally shipped from that country was Australia, have not been transhipped.

(4.) For the purposes of this section—

(a) goods may be treated as having been shipped from the Territory of Papua or the Territory of New Guinea if they have been shipped from either of those territories; and

(b) goods may be treated as having been shipped from Malawi, Southern Rhodesia,* or Zambia if they have been shipped from any of those countries or from Lourenco Marques or Beira in Mozambique.

Declared preference countries, Customs Tariff. 10.—(1.) The Minister may, by order published in the *Gazette*, declare that a country specified in the order is a declared preference country for the purposes of this Act.

(2.) An order under the last preceding sub-section has effect, or shall be deemed to have had effect, from and including such date (which may be a date earlier than the date of publication of the order in the *Gazette*) as is specified in the order.

(3.) The Minister may, by order, published in the *Gazette*, revoke an order under sub-section (1.) of this section.

(4.) An order under the last preceding sub-section has effect from and including such date (which shall not be a date earlier than the date of publication of the order in the *Gazette*) as is specified in the order.

(5.) Goods shall not be treated as the produce or manufacture of a declared preference country for the purposes of this Act unless, at the time the goods are entered for home consumption, the order under sub-section (1.) of this section in which the declared preference country is specified has effect or is deemed to have had effect.

Declared preference countries comprise:

Bahamas	Gambia	Nigeria, Federation of
Barbados	Ghana	St. Helena
Bermuda	Gibraltar	Seychelles
British Honduras	Gilbert and Ellice Islands	Sierra Leone
British Indian Ocean Territory	Colony	Singapore, Republic of
British Solomon Islands Protectorate	Guyana, Republic of	Sri Lanka, Republic of (formerly Ceylon)
British Virgin Islands	Hong Kong	Tanzania
Brunei	Jamaica	Tonga
Cyprus	Kenya	Trinidad and Tobago
Falkland Islands and Dependencies	Leeward Islands	Uganda
Fiji	Malaysia	Windward Islands
	Maldives Islands	
	Malta	
	Mauritius and Dependencies	

Developing countries, Customs Tariff

12. (1) The Minister may, by order published in the *Gazette*—

(a) declare that a country specified in the order is a developing country for the purposes of this Act; and

(b) direct that a territory or province specified in the order shall be treated as a developing country for the purposes of this Act.

(2) The Minister may, in an order under sub-section (1), direct that a specified country that is, or a specified territory or province that is to be treated as, a developing country by virtue of the order shall not be treated as a developing country in relation to a class of goods specified in the direction.

(3) An order under sub-section (1) has effect, or shall be deemed to have had effect, from and including such date (which may be a date earlier than the date of publication of the order in the *Gazette*) as is specified in the order.

* Under the United Nations Security Council's resolutions on Southern Rhodesia trade with that country is prohibited.

(4) The Minister may, by order published in the *Gazette*, revoke an order under sub-section (1).

(5) An order under sub-section (4) has effect from and including such date (which shall not be a date earlier than the date of publication of the order in the *Gazette*) as is specified in the order.

Developing countries comprise:

Afghanistan	Honduras	Peru
Albania	India	Philippines
Algeria	Indonesia	Qatar
Arab Republic of Egypt	Iran	Romania
Argentina	Iraq	Rwanda
Bahamas	Israel	Saudi Arabia
Bahrain	Ivory Coast	Senegal
Bangladesh	Jamaica	Sierra Leone
Barbados	Jordan	Singapore, Republic of
Bhutan	Kenya	Somali Democratic Republic
Bolivia	Khmer Republic	Sri Lanka
Botswana	Korea, Democratic People's	Sudan
Brazil	Republic of	Swaziland
Bulgaria	Korea, Republic of	Syrian Arab Republic
Burma	Kuwait	Tanzania, United Republic of
Burundi	Laos	Thailand
Cameroon	Lebanon	Togo
Central African Republic	Lesotho	Tonga
Chad	Liberia	Trinidad and Tobago
Chile	Libyan Arab Republic	Tunisia
Colombia	Malagasy Republic	Turkey
Congo	Malawi	Uganda
Costa Rica	Malaysia	Union of Arab Emirates (Ras
Cuba	Maldiv Islands	Al Khaimah, Abu Dhabi,
Cyprus	Mali	Dubai, Sharjah, Ajman,
Dahomey	Malta	Umm Al Qaiwain Fujairah)
Dominican Republic	Mauritania	Upper Volta
Ecuador	Mauritius	Uruguay
Equatorial Guinea, Republic of	Mexico	Venezuela
El Salvador	Mongolia	Vietnam, Democratic Republic
Ethiopia	Morocco	of
Fiji	Nepal	Vietnam, Republic of
Gabon	Nicaragua	Western Samoa
Gambia	Niger	Yemen Arab Republic
Ghana	Nigeria, Federal Republic of	Yemen, People's Democratic
Guatamala	Oman	Republic of
Guinea	Pakistan	Yugoslavia
Guyana	Panama	Zaire, Republic of
Haiti	Paraguay	Zambia

The Minister for Customs and Excise has directed that the territories or provinces specified in the Schedule hereunder are to be treated as Developing countries for the purposes of the Customs Tariff.

Bermuda	Gibraltar	Pitcairn Island
British Honduras	Gilbert and Ellice Islands	St. Helena
British Solomon Islands	Colony	Seychelles
Protectorate	Hong Kong†	Surinam
British Virgin Islands	Leeward Islands	Taiwan
Brunci	Mauritius, Dependencies of	Tokelau Islands
Cayman Islands	Netherlands Antilles	Turks and Caicos Islands
Cook Islands	New Hebrides Condominium	Windward Islands
Falkland Islands and	Niue Island	
Dependencies	Papua New Guinea	

† The Minister for Customs and Excise has directed that Hong Kong shall not be treated as a Developing country in relation to any class of goods to which a tariff classification specified hereunder applies:

42.03.9	67.04.2	70.12	85.09.4	94.01.9	97.02
61.05	67.04.3	85.09.1	94.01.2	94.03.2	97.03.9
67.04.1	67.04.9	85.09.3	94.01.4	94.03.9	98.15

General rates: General rates apply to goods from all countries which do not qualify for preferential rates of duty under a particular tariff classification.

By-law provisions. Customs By-laws and Ministerial Determinations are legal instruments made by the Minister for Customs and Excise or his delegates under the authority of Sections 271 to 273D of the Customs Act by which goods may be admitted free of duty or at rates of duty lower than those normally applicable. By-laws and determinations may only be made under a tariff provision containing the words 'as prescribed by by-law.' Such a provision sets out the by-law duty rates which will apply to goods only when such goods are included in a by-law or determination made under that provision. A prerequisite for by-law admission is that generally, suitably equivalent goods be not reasonably available from Australian production. A by-law covers goods by general description with no limit on quantity and may be used by any importer of the goods. A determination which is a somewhat less formal instrument can also be used for the same purpose but more commonly is used to specify a specific quantity of particular goods and is restricted to use only by the importer or importers named therein.

Primage duties. In addition to the ordinary duties of customs imposed by the Customs Tariff, *ad valorem* primage duties at rates of three and three-quarters per cent, seven and a half per cent and 10 per cent are charged on some goods according to the types of goods and origin thereof. Other goods are exempt from primage duty. Goods the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos (Keeling) Islands, Christmas Island and Papua New Guinea are exempt from primage duty.

Anti-dumping duties. The *Customs Tariff (Dumping and Subsidies) Act 1961-1965* provides protection for Australian industry against various forms of unfair trading. Under this Act dumping duty may be imposed on goods that are sold to Australian importers at a price which is less than the normal value of the goods, where this causes or threatens not insubstantial injury to an Australian industry. 'Normal value' under the Act means:

- (a) fair market value in the country of export;
- (b) price in the country of export to a third country;
- (c) fair market value in a third country; or
- (d) cost of production, plus f.o.b. charges, plus selling costs and profit.

The amount of dumping duty is the difference between the normal value and f.o.b. export price.

Countervailing duty may be levied on goods in respect of which any subsidy, bounty, reduction or remission of freight, or other financial assistance has been, or is being, paid or granted directly or indirectly upon the production, manufacture, carriage or export of those goods. The amount of the countervailing duty in respect of any goods is a sum equal to the amount of the subsidy, bounty, reduction or remission of freight or other financial assistance.

Import controls—Customs (Import Licensing) Regulations

A comprehensive system of import licensing was introduced in Australia at the beginning of the Second World War under the authority of the Customs (Import Licensing) Regulations. Following the gradual relaxation of the restrictions from the end of the War, import licensing was reimposed on 8 March 1952 and continued in force until 18 October 1962. From that date restrictions were removed from all commodities with the exception of some goods retained under control or subsequently brought under control for reasons associated with the protection of Australian industry. The goods subject to import licensing control as at 1 May 1974 are broadly described as used, second-hand or disposal earthmoving and construction equipment and used second-hand four-wheel drive vehicles.

Export controls and incentives

Export restrictions. Section 112 of the Customs Act provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia and that this power may be exercised by: (a) prohibiting the exportation of goods absolutely; (b) prohibiting the exportation of goods to a specified place; and (c) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the Customs (Prohibited Exports) Regulations.

Exchange control—Banking Act 1959-1967. As an integral part of the framework of exchange control, a control over goods exported from Australia is maintained under the provisions of Part III of the Banking (Foreign Exchange) Regulations, to ensure that the full proceeds of such goods are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia. This action is complementary to that taken under other parts of the Banking (Foreign Exchange) Regulations and under Part IV of the Banking Act to control the movement out of Australia of capital in the form of securities, currency and gold.

Export licences are issued subject to terms and conditions specified in the Banking (Foreign Exchange) Regulations, and may be subject to such further terms and conditions as are determined, or may be free from terms and conditions. On the receipt in Australia by the Reserve Bank, or by a bank acting as agent for that Bank, of advice that the foreign currency has been paid to the Reserve Bank or to an agent of the Bank in payment for goods exported in accordance with a licence granted under the regulations, the Bank, or an agent of the Bank, pays the licensee, or such other person as is entitled to receive it, an amount in Australian currency equivalent to the foreign currency received. In addition to commercial transactions involving exports, movements of personal effects are also controlled. Persons leaving Australia for overseas are required to obtain licences to cover their bona fide baggage, personal effects and household effects in any individual case where the gold content thereof exceeds \$1,000, or where jewellery and other articles of high intrinsic worth either exceed \$10,000 in value or those goods have not been the personal property of the passenger for at least twelve months.

Export incentives. The Australian Government provides financial concessions as incentives to export. A special market development allowance for export market development expenditure is designed to encourage firms to incur promotion expenditure in advance of export sales and to assist exporters and potential exporters to expand sales in existing markets and to enter new overseas markets. The allowance is in the form of a special income tax deduction additional to the ordinary taxation deduction allowable in respect of specified expenses. Export incentive grants based on pay-roll tax are made to employers whose export sales of goods or property rights have increased above their average annual level in a base period. The grant is available in the first place to firms who are producers for export; but a producer for export may pass on grants to another firm who has supplied components embodied in the final product or to an export merchant.

The Australian Government announced in December 1973 that the above incentives which expire on 30 June 1974 would be replaced by a new Market Development Grants Scheme after that date. This scheme is intended to provide taxable grants payable on eligible export promotion expenditure generally as defined under the existing market development allowance, and is designed to encourage firms to seek out and develop overseas markets and to participate in Australian Government sponsored trade promotions. These grants will be available at two rates and there will be a ceiling on payments to any one firm or group of firms.

Trade descriptions

The Commerce (Trade Descriptions) Act 1905-1966, administered by the Department of Customs and Excise, gives power to require the application of a proper trade description to certain prescribed goods imported into or exported from Australia. Goods which must bear a prescribed trade description upon importation into Australia are specified in the Commerce (Imports) Regulations. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and relating to specified export commodities.

Government authorities

Industries Assistance Commission

The Industries Assistance Commission is a statutory authority whose general purpose is to advise the Australian Government on the assistance which should be given to domestic industries. This advice is given in public reports which are based on public inquiries into the industries concerned. The Commission formally came into existence on 1 January 1974, as a result of the passing of the *Industries Assistance Commission Act 1973*. The Commission replaces the Tariff Board—a statutory authority which since 1921 had advised the Government on the assistance which should be given to industries in the secondary sector of the economy, by means of tariffs or bounties.

The Commission's field of inquiry is potentially much wider than that of its predecessor, the Tariff Board. The Industries Assistance Commission Act defines an industry as '... any business or activity concerned with or related to the production or supply of goods or the supply of services ...'; and it defines assistance as '... the imposition of duties or the doing of any other act that would in anyway, directly or indirectly, assist a person to carry on a business or activity or confer a pecuniary benefit on, or result in a pecuniary benefit accruing to, a person in respect of the carrying on of a business or activity'. Industries in the primary, secondary or tertiary sectors can be referred to the Commission by the Government, and numerous different forms of assistance can be examined by the Commission. In addition, matters not directly involving assistance, such as the reduction of import duties for the purpose of international trade agreements, can be referred to the Commission. The Act requires the Industries Assistance Commission to report annually to the Government on the operation of the Commission and on the general structure of industry assistance in Australia and its effect on the economy.

There are certain matters which the Minister is required to refer to the Commission for inquiry and report, before action is taken by the Government. These are, basically, proposed variations in the long-term assistance afforded industries in the primary or secondary sectors of the economy. 'Long-term assistance' in this context means assistance which is provided by means of tariffs or other restrictions on imports; or financial assistance which extends over a period of two years or more. The Commission itself has the power to initiate inquiries into those industries whose assistance has not been reviewed for at least ten years, in the case of industries assisted by means of duties on imports, or at least six years in the case of industries assisted by other means.

The Act states that the Commission shall consist of from five to nine Commissioners, appointed by the Governor-General for renewable terms of up to five years. It provides also for the appointment of Associate Commissioners, either for the purpose of particular inquiries or, like the Commissioners, for renewable terms of up to five years. The Commissioners are supported by an office which is staffed by members of the Australian Public Service.

The Commission is required to hold public hearings during the course of its inquiries into individual industries. These hearings are advertised widely throughout Australia and can be attended by anyone interested in the outcome of the inquiries.

Temporary Assistance Authority

The *Industries Assistance Commission Act 1973* provided for the creation of a Temporary Assistance Authority comprising not more than three persons. This authority replaces the previous Special Advisory Authority. The function of the Temporary Assistance Authority is to inquire into and report on the need for urgent action to protect particular industries against import competition. This action can take the form of temporary duties or restrictions on imports. The Temporary Assistance Authority is required to report to the Minister within thirty days of being asked to undertake an inquiry. However, before taking action on the Authority's report the Minister is required first to refer the question of any permanent change in protection against imports to the Industries Assistance Commission for inquiry and report. Temporary protection recommended by the Authority may operate for a period of up to three months after the date of receipt of the final report by the Industries Assistance Commission on the goods concerned.

Trade Agreements

Multilateral—General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade (GATT), which came into force on 1 January 1948, is a multilateral trade treaty designed to facilitate trading relations between participating countries by reducing tariff and other barriers to the free interchange of goods. The Agreement provides a framework within which negotiations can be held to reduce barriers to trade, and a structure for embodying the results of such negotiations in a legal instrument. Features of the Agreement are the schedules of tariff concessions participating countries have negotiated with each other, the application of most-favoured-nation tariff treatment among the participants, the avoidance of other trade discrimination, and a code of agreed commercial policy rules for international trading. Each participating country retains the right; (a) to impose new or increased duties for protective purposes, except in respect of particular products where rates of duty have been bound against increase in negotiations under the Agreement; (b) by negotiation to modify or withdraw concessions formerly agreed; (c) to impose import restrictions to protect the balance of payments; (d) to take emergency action where any industry is endangered by reason of any obligation incurred under the Agreement.

There have been six main tariff negotiations under the provisions of the Agreement, and a number of smaller scale negotiations preceding the accession of individual countries. As a result the tariff rates for a great many items entering into world commerce have been reduced and/or bound against increase. Australia has obtained tariff concessions from individual countries on a number of its principal or potential exports to them, as a result both of direct negotiation by Australia and of negotiation by other countries. In the latter case the benefits occurred through the operation under the Agreement of the most-favoured-nation principle. The sixth series of trade negotiations, the Kennedy Round, was based on a plan for linear tariff cuts by industrial countries on all industrial products, with a minimum of exceptions, and on the reduction of non-tariff barriers to trade and the creation of acceptable conditions of access to world markets for agricultural products. It concluded in June 1967 after three years of negotiations. Concessions were negotiated on trade valued at over \$36,000 million. The average reductions in tariffs on industrial goods was roughly one-third, while in agriculture the most important item was the agreement reached on the basis for a new world grains arrangement. (See the chapter Rural Industry.) Overall results were substantial, but were

unevenly spread in that efforts to reduce trade barriers were very much more successful for manufactures than for primary products. In the post-Kennedy Round period, therefore, Australia placed particular emphasis on the work of the Committee on Agriculture, created in November 1967, to examine the problems in the agricultural sector.

An Anti-Dumping Code, negotiated during the Kennedy Round, came into force on 1 July 1968. The Code interprets the provisions of Article VI of the GATT and lays down rules on the determination, investigation and counter-action of injury caused by the dumping of goods on world markets. The rules aim to ensure the greatest possible uniformity of practice by signatory governments. Code signatories enact national legislation to give effect to the international agreement and this legislation embraces the provisions and wording of the Code, though to varying extents depending on the particular country. Australia did not initially accede to the Code but in 1973 the government announced its intention to do so.

A new round of multilateral trade negotiations (the seventh) was inaugurated at Tokyo in September 1973 and is scheduled to be completed in 1975. By January 1974 over eighty countries, both GATT and non-GATT members, had indicated that they would participate in the negotiations. In a Declaration adopted at the Tokyo conference it was agreed that the principal areas of negotiation should be the reduction of tariff and non-tariff barriers (e.g. import restrictions, export restraints, minimum price regulations and subsidies) to trade in agricultural and industrial products; and safeguard measures against disruption of domestic industries by imports. The problems of developing countries were to be given special treatment. Australia has actively participated in all stages of the negotiations.

Up to the end of 1973 the contracting parties had held twenty-nine sessions, nearly all in Geneva, to deal with matters arising from the administration of the Agreement. As a general rule the contracting parties meet once a year, although in a few instances they have met twice. In 1960 a Council of Representatives was established to undertake work, both of an urgent and of a routine character, between the regular sessions of the contracting parties. Some of the provisions of the Agreement were revised in 1954 and 1955. The revised Agreement contains tighter provisions on non-tariff barriers to trade, and allows more freedom for countries to revise individual tariff items which had been bound against an increase in tariff negotiations under the Agreement.

Since GATT has not been accepted definitely, the Agreement is at present being applied provisionally pursuant to a Protocol of Provisional Application. On 1 January 1974, eighty-three countries whose foreign trade represents well over eighty per cent of the total volume of world trade, were full contracting parties to the Agreement, two had acceded provisionally, and fourteen applied the Agreement on a *de facto* basis.

Increasing attention has been focused in GATT on specific trade and development problems of developing countries, and in February 1965 a new Part IV of GATT, aimed at helping developing countries solve these problems, was introduced on a *de facto* basis. It entered legally into force in June 1966. The new Part IV embodies commitments to individual and joint action by contracting parties, aimed at ensuring that the developing countries can increasingly find the means to raise standards of living and promote rapid economic development through participating in international trade and achieving sustained growth of their export earnings.

Arising from the commitments entered into under Article IV of GATT and proposals emanating from the United Nations Conference on Trade and Development (UNCTAD), Australia introduced a system of tariff preferences for developing countries in 1966. The aim of the scheme was to help developing countries to export products to Australia in cases where their industries were not fully competitive. Australia's initiative in this field required a waiver of the GATT "no new preference" rule. Twenty-one other developed countries have since introduced some form of "Generalised System of Preferences" (GSP) for developing countries. A GATT waiver was provided to enable these systems to be introduced. On 1 January 1974 Australia modified and expanded its system of preferences so that it came under the GATT waiver for the GSP. The system now includes all manufactured, semi-manufactured and processed primary products except for products subject to revenue duties and those where developing countries are already competitive. An initial margin of preference, 10 percentage points below the general tariff rate, is provided. It is proposed to further reduce the rate of duty on imports from developing countries at two-yearly intervals until imports are competitive. Some forty products receive preference only in respect of pre-determined quantities or values, i.e. quotas. The system is non-reciprocal (in that Australia seeks nothing in return) and is subject to international supervision through the GATT. It also contains safeguards for Australian industry whereby preferences on individual products can be modified or withdrawn if serious injury is occurring or threatened.

A four-year Arrangement Regarding International Trade in Textiles was negotiated under the auspices of GATT toward the end of 1973 and came into force on 1 January 1974. The Arrangement succeeds the Long Term Arrangement Regarding International Trade in Cotton Textiles which operated from 1962 to 1973. World trade in textiles has for many years been characterised by numerous discriminatory restrictive import measures designed to avoid market disruption from low-cost imports. The Textiles Arrangement aims to avoid situations of market disruption and to lead to the gradual liberalisation of trade in textiles. A surveillance body has been established under the Arrangement to review import restraints and to make recommendations where it considers the restraints to be inconsistent with the Arrangement. Australia has provisionally acceded to the Arrangement and has notified its intention to fully accede.

Bilateral agreements

Britain. The original United Kingdom/Australia Trade Agreement (Ottawa Agreement) came into effect on 20 August 1932. The provisions and history of the Agreement were published in Year Book No. 43, page 329. The latest Agreement, the United Kingdom/Australia Trade Agreement (U.K.A.T.A.) arose from the re-negotiation of the Ottawa Agreement to correct an imbalance in trade which had developed in Britain's favour. It came into effect on 9 November 1956 and superseded the Ottawa Agreement. (See also Year Book No. 51, page 495.)

Briefly, U.K.A.T.A. provided for duty-free access for most products and preferences on a range of Australian products imported into Britain, in return for commitments with regard to the setting of tariff levels and preferential tariff treatment for British goods imported into Australia.

Following British entry into the European Economic Community U.K.A.T.A. was terminated on 31 January 1973.

Canada. The 1960 Canada/Australia Trade Agreement provides not only for each side to give the other preferences on specific goods but also for the exchange of preferences in each country's tariff derived from the preferential agreements that each had with Britain. The termination of these agreements with Britain created a need for Canada and Australia to review their own preferential trading arrangements. Each country was at the same time experiencing a growing need for greater flexibility in tariff making. An Exchange of Letters governing the future operation of the 1960 Agreement was completed between Canada and Australia on 25 October 1973. The Exchange provides for a continuation of the tariff preferences exchanged under the 1960 Agreement, but on a more flexible basis, and also modifies certain other provisions of the 1960 Agreement, particularly those relating to indirect shipment of goods and to anti-dumping procedures. In general, understandings included in the Exchange remain in force for an initial period of one year and may thereafter be terminated upon 30 days notice. The Agreement itself continues subject to six months' notice.

New Zealand. The New Zealand/Australia Free Trade Agreement came into force on 1 January 1966. The Agreement provides for free trade in certain scheduled goods. Provision is made for the progressive addition of items to the schedule. The provisions of the 1933 Trade Agreement between Australia and New Zealand continue in force as part of the Free Trade Agreement, except as superseded or modified by it.

Under the 1933 Agreement each country accorded British Preferential tariff treatment to the other's goods with certain exceptions.

Following the termination in January 1973 of the Trade Agreements which they had with Britain, Australia and New Zealand entered into an arrangement on 7 May 1973 to guarantee tariff preference in each other's market. This agreement continues in force until 30 September 1974 unless extended or replaced before that date.

The Agreement provides for Australia to maintain a minimum margin of 15 per cent for New Zealand goods and/or New Zealand to maintain a minimum margin of 10 per cent for Australian goods in cases where the tariff is protective. In the case of a non-protective item a minimum margin of 5 per cent is to be maintained. The Agreement also provides that neither country will raise tariffs against the other beyond the levels of 31 January 1973 unless there are protective reasons or revenue considerations.

Papua New Guinea. A Memorandum of Understanding Relating to Interim Trade and Commercial Arrangements between Australia and Papua New Guinea was signed on 20 December 1973. The Memorandum of Understanding provides that Papua New Guinea will continue to receive preferential treatment in the Australian tariff and that Australia will receive most-favoured-nation treatment in Papua New Guinea. It also provides for the encouragement and protection of Australian investment in Papua New Guinea and for Australia to provide assistance to Papua New Guinea in trade promotion and training in the trade policy and promotion area. The Memorandum of Understanding will operate up to the date of independence of Papua New Guinea.

Malaysia. A trade agreement with the then Federation of Malaya came into force in August 1958. Under the Agreement Malaya undertook to accord to Australia preferences on certain specified goods, to extend to Australia any other preferences in the Malaysian tariff and to protect Australian wheat and flour against dumped or subsidised competition. Australia undertook to accord preferences to Malaya on certain specified goods and to protect Malaysian tin and rubber against dumped or subsidised competition, guaranteed free entry for natural rubber so long as the Papua New Guinea crop was absorbed, and assured the Federation that natural rubber would not be at a disadvantage compared with synthetic rubber in respect of tariff or import licensing treatment. The Agreement continues to apply between Australia and that portion of Malaysia known previously as the Federation of Malaya.

Japan. An Agreement on Commerce between Australia and Japan was signed on 6 July 1957, and formally ratified on 4 December 1957. It was provided that the Agreement would remain in force until 5 July 1960, and thereafter unless prior notice of termination should be given by either Government. The agreement provides that each country shall extend most-favoured-nation treatment to the other in respect of customs duties and similar charges, and import and export licensing. Japan is not entitled to claim the benefit of preferences accorded by Australia to Commonwealth countries and dependent territories. Japan also gave certain specific commitments on some important Australian export commodities.

Following a review of the agreement, a Protocol of Amendment was signed on 5 August 1963 and formally ratified on 27 May 1964. Under the Protocol Australia agreed to withdraw action against Japan under Article XXXV of the General Agreement on Tariffs and Trade and thus a full GATT relationship was established between the two countries.

The specific undertakings agreed in 1957 lapsed and the following commitments were entered into.

Japan has:

- (a) undertaken not to accord less favourable import treatment (apart from tariff) for raw wool than for raw cotton,
- (b) stated that it has no present intention of imposing a duty on wool,
- (c) undertaken to continue imports of Australian soft wheat at a stabilised level, and to purchase Australian hard wheat* when necessary requirements are met,
- (d) stated that it will endeavour to expand opportunities for imports into Japan of Australian sugar, canned meat, leather, motor vehicles, butter, and cheese.

Australia has:

- (a) undertaken to consult Japan on temporary protection cases affecting Japanese products (in such consultations Japan will consider whether the need for temporary protection can be obviated by measures taken in Japan),
- (b) stated that equal opportunities of fair and equal competition are accorded to Japanese products in Australian Government purchases overseas.

The new agreement became effective for three years from the date of ratification (27 May 1964) and thereafter subject to three months notice of termination by either Government.

Indonesia. A trade agreement between Indonesia and Australia came into force on 1 July 1959. This agreement was re-negotiated in 1972. The new agreement, signed on 14 November 1972, is a most-favoured-nation agreement which establishes the GATT principles as the basis governing the conduct of bilateral trade. The agreement expresses support for international commodity agreements, encouragement of Australian investment in Indonesia and activities by Australian consultants and contractors. Other provisions refer to Australian support for trade initiatives in the Association of South East Asian Nations (ASEAN) and to consultation on shipping matters.

People's Republic of China. The Australia-China Trade Agreement was signed in Canberra on 24 July 1973. The agreement provides for reciprocal most-favoured-nation treatment, while recognising existing preferences. It expresses support for the conclusion of bilateral commercial long-term commodity contracts, encourages trade promotional activities in both countries and established a Joint Trade Committee to examine the implementation of the agreement and to explore measures aimed at the expansion of mutually beneficial trade.

Philippines. The trade agreement with the Philippines was signed in Manila on 16 June 1965. The agreement provides for an exchange of non-discriminatory most-favoured-nation treatment while recognising existing preferences. The agreement had an initial life of one year and will continue until one Government gives ninety days notice of its intention to terminate it.

* 'Soft' wheat is fair average quality wheat; 'hard' wheat is premium grade wheat similar to that grown in North America.

Republic of Korea. On 21 September 1965 a trade agreement was signed in Seoul between Australia and the Republic of Korea. Basically the agreement provides for the exchange of non-discriminatory most-favoured-nation treatment while recognising existing preferences. The agreement had an initial life of one year but contained provision for automatic extension. Both Governments undertook to use their best endeavours to increase the volume of trade between the two countries.

U.S.S.R. Australia signed a trade agreement with the U.S.S.R. on 15 October 1965 and an additional agreement on the Development of Trade and Economic Relations on 16 March 1973. The 1965 Agreement provides for the exchange of most-favoured-nation treatment. The 1973 Agreement indicates commodities of export interest to each country respectively, and established a mixed commission of flexible composition to discuss trade problems and explore means for the expansion of trade and economic co-operation.

German Democratic Republic. The trade agreement with the German Democratic Republic was signed on 28 February 1974. It provides for the exchange of most-favoured-nation treatment, the encouragement and facilitation of trade and of economic, industrial and technical co-operation. It includes indicative lists of goods each country is interested in exporting to the other. The agreement also established a mixed commission to review the state of trade and discuss measures for its expansion.

Czechoslovakia. An agreement on trade relations was signed with Czechoslovakia on 16 May 1972. This confirmed the exchange of most-favoured-nation treatment as contracting parties to the GATT and established a Joint Trade Committee to discuss trade problems and examine prospects for the growth of trade between the two countries.

Poland, Bulgaria, Romania, Hungary and Yugoslavia. Australia has signed trade agreements with Poland (20 June 1966), Bulgaria (22 June 1966), Romania (18 May 1967), Hungary (5 December 1967) and Yugoslavia (21 July 1970). These agreements provide for the exchange of most-favoured-nation treatment; for payments to be in convertible currency, and for consultations on trade matters to be held at the request of either Government.

Trade services

Trade Commissioner Service

The stimulation of interest abroad in Australia's exports is an important government activity in which the Australian Trade Commissioner Service plays a prominent part. A brief account of the establishment and growth of the Trade Commissioner Service before the 1939-45 War is available in Year Book No. 51, page 496. Since the War the service has increased steadily. By early 1974 there was an establishment of 169 Trade Commissioners and Assistant Trade Commissioners in Australia and in 55 posts in 41 countries.

Trade Commissioners are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organisations include: surveys of market prospects; advice on selling and advertising methods; arranging introductions with buyers and agents; providing reports on the standing of overseas firms; advice and assistance to business visitors; helping to organise and carry through trade missions, trade displays, newspaper supplements, and other promotion and publicity media; providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements, and other factors affecting the entry and sale of goods; helping to attract desirable investment.

In some countries Trade Commissioners also participate in inter-governmental negotiations in the economic and commercial fields. In certain countries where there is no diplomatic or consular mission Trade Commissioners are called upon to act as the Australian representative.

Trade Commissioners, Assistant Trade Commissioners and Trainee Trade Commissioners are drawn from both private enterprise and the public service. Applications for entry are invited periodically by public advertisement. Recruitment is generally at the Trainee Trade Commissioner and Assistant Trade Commissioner level and officers are promoted to higher grades or to Trade Commissioner as experience and performance warrant. In the majority of posts the Trade Commissioner is supported by an Assistant Trade Commissioner and, in some cases, also by another Trade Commissioner.

The Trade Commissioner Service is administered by the Department of Overseas Trade (as distinct from the diplomatic and consular services administered by the Department of Foreign Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to the mission and to hold an appropriate diplomatic or consular rank (Minister Commercial, Commercial Counsellor, Commercial Secretary or Commercial Attache).

The overseas trade representation is shown in the chapter International Relations.

Trade Missions

Since 1954 the Australian Government has sent trade missions abroad as part of its trade promotion program. The experience acquired has indicated the need for flexibility in techniques to suit particular products or markets. At present the following types of trade missions are in use.

Survey missions. These are organised to obtain precise knowledge about the export trade potential for specific products in one or more overseas markets. Such methods are used to explore export prospects in new or developing areas where commercial intelligence is not readily available or where a complex industry is involved and the industry requires special export knowledge.

Specialised and general trade missions. Arrangements are made for specific industries or groups of firms representing a number of industries to participate in a planned selling campaign in overseas markets with known sales potential. The mission visits the market, publicises its products and negotiates sales.

Up to the end of April 1974 Australia has sent overseas 92 trade and survey missions and 5 trade ships.

Trade displays, fairs, exhibitions and store promotions

For many years Australia has participated in numerous major trade fairs, exhibitions and displays in Africa, Asia, Europe, the Americas and the Pacific Area.

Initially the emphasis was on participation in general trade fairs directed at the public and the general commercial community. With the development of export promotion techniques and the greater diversity of goods available for export, greater emphasis is now being placed on individual Australian trade displays and participation in specialised trade shows directed almost entirely at the business community. In addition, display rooms in Trade Commissioner offices are currently in use in Singapore, Kuala Lumpur, Manila, Hong Kong and Jakarta.

Market assistance

The Australian Government established a Market Assistance Section in the Department of Overseas Trade in January 1974 to advise and assist developing countries and countries with centrally planned economies in the marketing of their products in Australia. The section, which is located in Canberra, is supported by two experienced Australian Trade Commissioners, one located in Sydney and the other in Melbourne, to maintain contact with the commercial sector and provide direct practical assistance.

Export of consulting services

Australian professional consultants have been increasingly successful in obtaining overseas commissions and are making a significant contribution to Australia's foreign exchange earnings.

The consultants are representative of a wide range of disciplines, including engineering, architecture, agriculture, mining, management, surveying, quantity surveying and urban and regional planning.

Most opportunities for Australian professional consultants arise through development projects financed by international aid and lending organisations such as the International Bank for Reconstruction and Development, the International Development Association, the Asian Development Bank and the United Nations Development Program.

However, Australian consultants are also receiving commissions under Australia's External Aid Programs and from the private sector, particularly in South-East Asia.

Construction contracts overseas

The Australian Overseas Construction Council, which was formed by the Master Builders' Federation of Australia and the Australian Federation of Construction Contractors, assists construction contractors to win contracts overseas. It has close liaison with the Department of Overseas Trade, which provides information on construction opportunities abroad.

Australian construction contractors have recently entered the South-East Asian market and are also operating more actively in the Pacific Area.

Some of the best opportunities have been found in the civil engineering field in the construction of highways, bridges and dry docks but there are also many contracts being let for the erection of multi-storey office buildings and tourist development projects.

Export Payments Insurance Corporation

The Export Payments Insurance Corporation was established by the Australian Government in 1956 with the objective of encouraging exports by providing insurance against risks of non-payment of overseas accounts. The Corporation is charged to be self-supporting, i.e. over a period its income should be adequate to cover the expenses of operation and any payments of claims which may be incurred.

The main risks of loss against which the Corporation insures are the 'commercial' risks of the insolvency or protracted default of the buyer and 'political' risks. The latter include exchange transfer difficulties; the imposition of government regulations which prevent the import of the goods into the buyer's country; war, revolution or civil disturbance in the buyer's country. For most 'political' risks insurance cover is available to a maximum of 90 per cent of the amount of loss in the pre-shipment period and a maximum of 95 per cent in the post-shipment period. The rate of cover for 'commercial' risks is fixed at 90 per cent.

The Corporation may submit to the Government, for consideration in the national interest, applications for payment insurance which are commercially unacceptable to the Corporation. In considering such applications the Government takes account of both political and economic factors.

Several important amendments have been made to the Export Payments Insurance Corporation Act, each of which widened the scope of the Corporation's activities. An amendment in November 1964 authorised E.P.I.C. to issue guarantees of payments to commercial lending institutions on money raised for the purpose of financing exports. A further amendment in November 1971 permitted the Corporation to extend its guarantee facility to credit made available by lending institutions direct to the overseas buyer. The facility known as 'buyer credit facility' was intended to cater for the export of capital goods and services on extended repayment terms. It is designed to supplement supplier credits and thus widen the range of facilities available to Australian exporters.

Re-insurance facilities were introduced by E.P.I.C. following the 1971 amendment. The Corporation is now able to enter into re-insurance arrangements with its overseas counterpart institutions or export contracts with a substantial foreign content.

In addition to providing the above facilities, the Corporation insures, on behalf of the Australian Government, eligible Australian investments in overseas countries against the main non-commercial risks associated with investing overseas, e.g. expropriation, exchange transfer difficulties, and war damage. For an investment to be eligible it must confer benefits on both Australia and the investment host country. At 31 December 1973, 107 policies had been written for 35 investments mainly in South-East Asia. The face value of these policies was \$50 million.

Since the first policy was issued in September 1957, Australian exporters have made increasing use of the facilities of E.P.I.C. At 31 December 1973, the Corporation had 1,090 policies current on its commercial account (i.e. not including Government business) with a face value of over \$696 million. The majority of transactions have been on a short or medium term basis using a supplier credit facility (i.e. insured credit being extended to the overseas buyer by the exporter with the financial support of private lending institutions). The Corporation has issued policies covering exports to over 150 countries and has insured a wide range of Australian exports.

A Consultative Council, composed of eight leading figures in the fields of banking, commerce and industry, and two Government members advises the Corporation on its activities. The council meets two or three times a year and is appointed for a term of three years.

Further information on the Corporation is contained in Year Book No. 49, page 544. For particulars of its operations *see* Chapter 17, Private Finance of this Year Book.

Collection and presentation of statistics

Basic documents and scope of overseas trade statistics

Overseas trade statistics are compiled by the Australian Bureau of Statistics from copies of export and import entries submitted by exporters and importers or their agents to the Department of Customs and Excise as required by the Customs Act. The statistics are not confined to goods which are the subject of a commercial transaction and all goods moving into or out of Australia are recorded, except for those exclusions listed below. Among the items included are exports and imports on government account including some items of defence equipment, and outside packages (that is, the outside package or outside covering of the goods). Outside packages are included as a separate item in the tabulation of imports but in exports the value recorded for each item includes the value of the outside package.

The following are excluded from overseas trade statistics:

- (a) Direct transit trade, i.e. goods transhipped in Australian ports in their movement from and to other countries.
- (b) Bunkers and stores supplied to vessels and aircraft. (However, a separate 'Ships' Stores' collection is made and details are shown on page 331.)
- (c) Those migrants' and passengers' effects for which a customs entry is not received.
- (d) Those parcel post exports and imports of small value for which customs entries are not received.
- (e) Certain materials for intergovernmental defence projects for which customs entries are not required.
- (f) The value of ores and concentrates exported and imported includes the value of gold and/or silver content. These unseparated metals are thus excluded from gold and silver exported and imported as such.
- (g) Vessels and aircraft engaged in the transport of passengers or goods between Australia and other countries.
- (h) Vessels and aircraft purchased for use on overseas routes and any subsequent sales made of such vessels and aircraft.
- (i) Fish and other sea products landed abroad directly from the high seas by Australian vessels.

Areas applying

The area to which all overseas trade statistics issued by this Bureau apply is the whole of the Commonwealth of Australia, comprising the six States, the Northern Territory and the Australian Capital Territory. Non-contiguous territories under Australian administration are treated as outside countries. Trade transactions between Australia and those non-contiguous territories are part of the overseas trade of Australia and are published separately in Australia's overseas trade statistics.

Period covered by the statistics

Exports and imports are recorded statistically in the month in which the entries are passed by the Department of Customs and Excise. Normally this is within a few days of loading or discharge of cargo. Delays sometimes occur in the lodging of export entries and import entries may be cleared early using the Customs' check-to-arrive system.

Containerised goods

Containerised goods forwarded interstate for export through a container terminal are statistically recorded as being exported from the port of location of the Customs House at which the entry was lodged and not necessarily from the port of loading in Australia. For example, containerised goods for which entries were lodged at the Customs House, Port Adelaide, but forwarded interstate to Port Melbourne for export would be recorded statistically as exports from Port Adelaide, hence from South Australia and not Victoria. The same method of recording applies to imports of containerised goods forwarded interstate following discharge from an overseas vessel.

Valuation

Commencing with the Bureau publications issued at the close of 1965 values in overseas trade statistics have been expressed in \$A. Prior to this values were expressed in £ (Aust.) except for imports into Australia which, up until 15 November 1947, were recorded in British currency values. Full explanatory notes on the methods of recording import values before and since 15 November 1947 were included in Year Book No. 37, page 396.

All values in overseas trade statistics are determined on a 'free on board (f.o.b.) port of shipment' basis. This means that all charges (in particular the cost of freight and insurance) incurred after the goods have been exported from the port of shipment are excluded. Only transport and service charges incurred, or usually incurred, prior to export are included in the determination of trade values.

The procedure adopted to value exports and imports is as follows:

Exports. The recorded value of goods exported includes the cost of outside packages and has been determined, since July 1937, as follows:

- (a) Goods sold to overseas buyers before export are valued at the Australian f.o.b. port of shipment equivalent of the actual price at which the goods were sold.
- (b) Goods shipped on consignment are valued at the Australian f.o.b. port of shipment equivalent of the price paid for similar goods of Australian origin in the principal markets of the country to which they are despatched for sale.

An account of the bases of valuation in operation prior to July 1937 is given on page 396 of Year Book No. 37.

Imports. The recorded value of goods imported is the amount on which duty is payable or would be payable if the duty were *ad valorem*. Value for duty of any goods shall be the sum of (a) and (b) below, i.e.:

(a) the higher of—

- (i) the actual money price paid or to be paid for the goods by the Australian importer plus any special deduction ('special deduction' is defined as any discount or other deduction allowed to the Australian importer which would not ordinarily have been allowed to any and every purchaser at the date of exportation of an equal quantity of identically similar goods); or
- (ii) the current domestic value of the goods ('current domestic value' is defined as the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country);

and

(b) all charges payable or ordinarily payable for placing the goods free on board at the port of export.

In the case of goods consigned for sale in Australia the 'value for duty' shall be the amount which would be the value for duty if the goods were, at the date of exportation, sold to an Australian importer instead of being consigned for sale in Australia.

Leasing arrangements. The recorded value of goods exported, or imported under leasing arrangements is defined as the free on board value, i.e. not the value of the lease receipts or payment. However, for balance of payments purposes, large items of equipment under lease are normally excluded from export and import figures and, therefore, from the balance of trade since no change of ownership has occurred.

Quantity data

Where quantities are shown they are generally expressed in terms of the normal unit of quantity appropriate to the industry.

Statistical concepts of trade

Trade systems. There are two generally accepted systems of recording overseas trade statistics defined by the Statistical Office of the United Nations, that is 'special trade' and 'general trade'. The definitions for these are shown in Year Book No. 57 and earlier issues. This terminology is not usually employed in connection with Australian overseas trade statistics and the terms defined below are in customary use.

Exports of Australian origin are goods, materials or articles which have been produced, manufactured or partly manufactured in Australia, except goods which were originally imported and have undergone only repair or minor operations which leave them essentially unchanged.

Re-exports are goods, materials or articles originally imported which are exported either in the same condition in which they were imported or after undergoing repair or minor operations which leave them essentially unchanged. 'Minor operations' include blending, packaging, bottling, cleaning, sorting, husking and shelling.

Total exports are the aggregate of exports of Australian origin and re-exports.

Import clearances are imported goods cleared through Customs direct for domestic consumption plus goods cleared from bonded warehouses for domestic consumption (these are comparable to 'special trade').

Imports are the combined total of goods imported direct for domestic consumption and imports into bonded warehouses (these are comparable to 'general trade').

Merchandise and non-merchandise trade. Total trade is divided into merchandise and non-merchandise trade in accordance with international standards recommended by the United Nations. Merchandise trade is the equivalent of total exports or imports less certain items specified as non-merchandise. A complete description of the commodities included is contained in the *Australian Export and Import Commodity Classifications* (8.3, 8.6) published by the Australian Bureau of Statistics.

Balance of trade and balance of payments

The balance of trade is derived by comparing statistics of exports on a balance of payments basis with statistics of imports on that basis. Therefore the excess of the value of exports or imports as shown on the basis of total trade in the table on page 318 does not on these bases represent the balance of trade. Statistics of the balance of trade for balance of payments purposes are derived by making certain adjustments, relating both to scope and valuation, to statistics of merchandise exports and imports. Information on these statistics will be found in the section relating to the balance of payments, page 341.

Country of consignment or origin

'Country of consignment' referred to in export tables means the country to which goods were consigned at the time of export. Where the country of consignment is not determined at the time of export the goods are recorded as exported 'For orders'. 'Country of origin' referred to in import tables means the country of production as determined for tariff purposes. Classification of imports according to country of shipment was discontinued after the year 1920-21. A brief account of the dual system of import classification by country operating prior to the year 1921-22 is given on page 500 of Year Book No. 51.

Commodity classifications

Exports and imports are classified according to the Australian Export and Import Commodity Classifications. These classifications are based on the Standard International Trade Classification, Revised (S.I.T.C.), which is closely related to the Brussels Tariff Nomenclature used in the Australian Customs Tariff.

Pre-federation records

In the years preceding federation each State recorded its trade independently and in so doing did not distinguish other Australian States from external countries. The aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, but the results obtained are subject to error, since past records of values and the direction of exports and imports were not on uniform lines. Exports and imports for years prior to federation may be found in early issues of the Year Book, particularly Year Book No. 2. On the introduction of the *Customs Act* 1901 the methods of recording values were made uniform throughout the States.

OVERSEAS TRADE: AUSTRALIA

1955-56 TO 1972-73

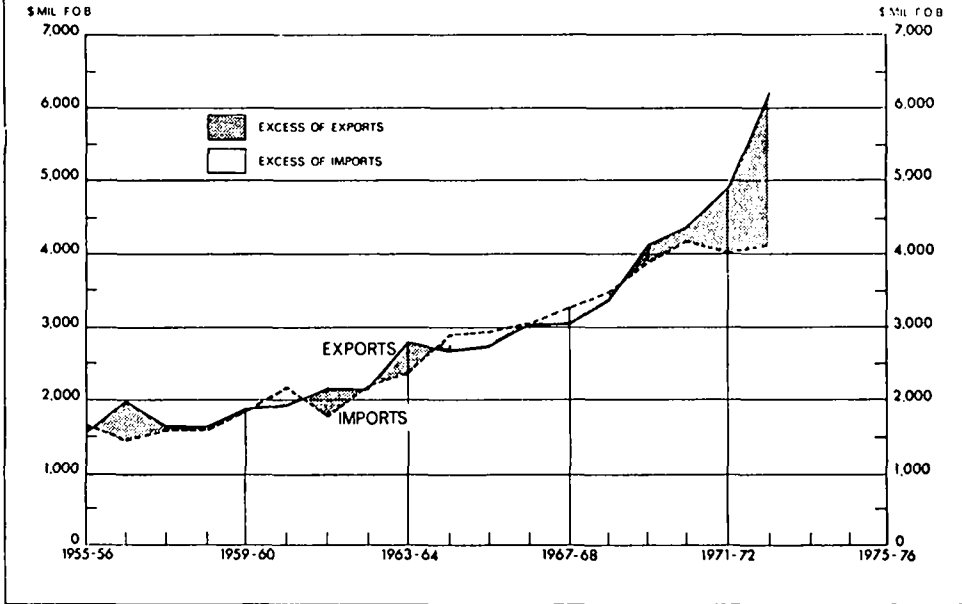


PLATE 32

VALUE OF EXPORTS AND IMPORTS: AUSTRALIA

PROPORTIONS BY COUNTRY

1968-69 TO 1972-73

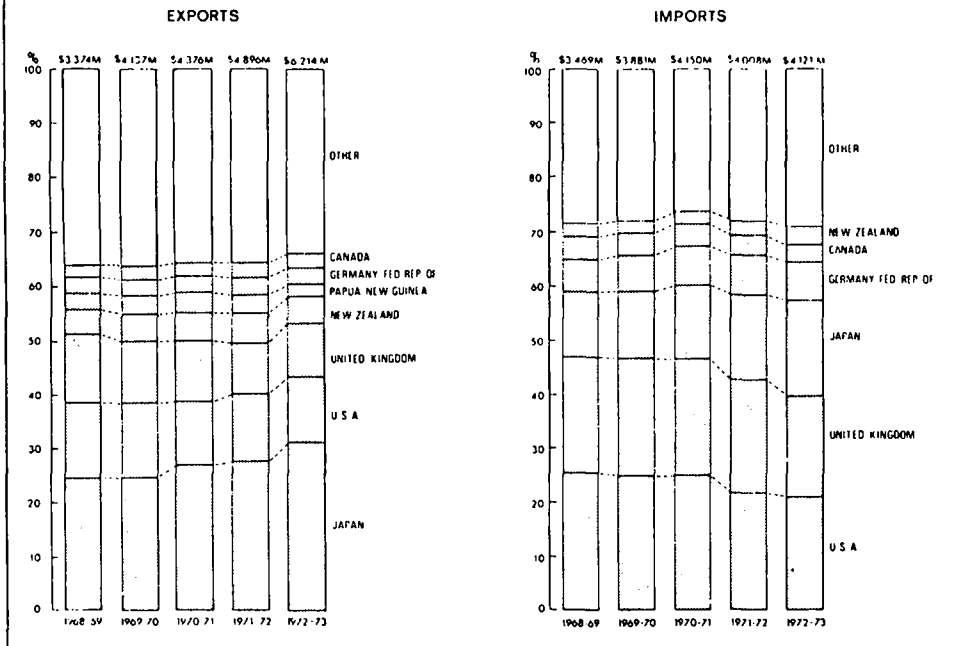


PLATE 33

Total overseas trade

The following table shows the total trade of Australia with overseas countries from 1901 to 1972-73. The period 1901 to 1970-71 has been divided into five-year periods, and the figures shown represent the annual averages for the periods specified. Figures for the individual years were published in earlier issues, but figures for imports in issues prior to No. 37 were expressed in British currency.

OVERSEAS TRADE: AUSTRALIA
(f.o.b.)

Period	Exports	Imports	Excess of exports (+) or imports (-)	Value per head of population	
				Exports	Imports
Annual average—	\$m	\$m	\$m	\$	\$
1901 to 1905	102	71	+ 31	26.2	18.2
1906 to 1910	(a)139	94	+ 45	32.6	22.0
1911 to 1915-16	149	133	+ 16	30.8	27.6
1916-17 to 1920-21	230	183	+ 47	43.8	34.8
1921-22 to 1925-26	269	249	+ 20	45.8	42.2
1926-27 to 1930-31	263	239	+ 24	41.0	37.2
1931-32 to 1935-36	242	148	+ 94	36.2	22.2
1936-37 to 1940-41	315	247	+ 68	45.4	35.6
1941-42 to 1945-46	328	423	- 95	44.8	58.2
1946-47 to 1950-51	1,143	899	+ 244	145.4	114.3
1951-52 to 1955-56	1,572	1,566	+ 6	176.4	175.6
1956-57 to 1960-61	1,811	1,729	+ 82	182.0	173.7
1961-62 to 1965-66	2,492	2,430	+ 62	224.8	218.6
1966-67 to 1970-71	3,591	3,562	+ 29	293.4	291.4
Year—					
1968-69	3,374	3,469	- 94	277.2	285.0
1969-70	4,137	3,881	+ 256	332.3	312.1
1970-71	4,376	4,150	+ 226	343.7	326.0
1971-72	4,893	4,008	+ 885	377.8	309.3
1972-73	6,214	4,121	+ 2,093	474.4	314.5

(a) Prior to 1906, ships' stores were included in exports. For value of such goods loaded on overseas vessels and aircraft during each of the years 1970-71 to 1972-73, see page 331.

Plate 32 on page 317 shows the overseas trade of Australia from 1955-56 to 1972-73.

The following table shows particulars of merchandise and non-merchandise trade for recent years.

MERCHANDISE AND NON-MERCHANDISE TRADE: AUSTRALIA
(\$'000 f.o.b.)

Year	Exports			Imports			
	Merchandise		Total	Non-merchandise		Total	
	Australian produce	Re-exports		Australian produce	Re-exports		
1968-69	3,156,231	84,054	3,240,283	88,848	45,131	133,980	3,374,263
1969-70	3,868,717	131,090	3,999,807	97,146	40,269	137,415	4,137,222
1970-71	4,119,518	123,117	4,242,635	81,428	51,694	133,122	4,375,757
1971-72	4,640,244	133,148	4,773,392	76,173	43,803	119,976	4,893,368
1972-73	5,879,066	193,449	6,072,514	82,359	58,830	141,190	6,213,704

Classified summary of Australian overseas trade

The following table shows exports and imports according to divisions of the Australian Export and Import Commodity Classifications (based on the Standard International Trade Classification, Revised).

EXPORTS AND IMPORTS: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS

(\$'000 f.o.b.)

Division No.	Description	Exports			Imports		
		1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
00	Live animals	10,187	10,690	17,084	5,633	5,512	6,795
01	Meat and meat preparations	428,528	558,263	857,021	1,415	1,403	1,421
02	Dairy products and eggs	101,522	113,062	142,015	5,863	7,040	9,116
03	Fish and fish preparations	55,878	74,137	73,605	42,025	41,813	47,657
04	Cereals and cereal preparations	596,024	623,361	421,671	5,397	5,413	5,688
05	Fruit and vegetables	107,040	96,265	124,845	25,347	27,510	25,883
06	Sugar, preparations, honey	160,068	223,074	259,798	3,017	3,210	3,264
07	Coffee, tea, cocoa, and spices	5,583	9,652	10,889	53,878	53,299	53,216
08	Feeding stuff for animals	11,883	16,156	22,653	9,613	7,760	6,073
09	Miscellaneous food preparations	3,554	3,779	4,831	5,451	6,832	3,885
11	Beverages	9,819	11,448	11,493	20,483	22,339	24,674
12	Tobacco and tobacco manufactures	4,770	4,168	3,673	29,649	28,197	27,566
21	Hides, skins and fur skins, undressed	73,709	82,196	192,227	1,185	1,169	1,538
22	Oil seeds, oil nuts and oil kernels	2,012	11,284	9,082	6,841	4,392	7,234
23	Crude rubber (including synthetic and reclaimed)	1,345	1,128	764	23,218	22,635	24,595
24	Wood, timber and cork	4,271	5,634	6,741	52,793	51,795	68,258
25	Pulp and waste paper	458	297	380	38,448	30,671	37,555
26	Textile fibres and their waste	549,649	586,548	1,168,666	37,031	43,014	49,721
27	Crude fertilisers and minerals (except coal, petroleum and precious stones)	16,329	12,292	17,239	51,863	45,148	52,643
28	Metalliferous ores and metal scrap	628,236	618,915	699,689	7,966	5,506	7,871
29	Crude animal and vegetable materials, n.e.s.	16,512	19,301	21,657	15,263	14,364	18,833
32	Coal, coke, and briquettes	206,240	240,262	294,616	771	487	485
33	Petroleum and petroleum products	41,623	60,163	46,374	188,844	193,330	174,703
34	Petroleum gases and other gaseous hydrocarbons	(a)	(a)	(a)	48	38	68
41	Animal oils and fats	27,725	33,303	29,497	1,177	408	301
42	Fixed vegetable oils and fats	99	484	211	14,391	12,093	10,745
43	Animal and vegetable oils, fats and waxes, processed	1,295	987	890	2,073	2,135	2,066
51	Chemical elements and compounds	111,812	155,896	181,123	141,315	139,253	143,325
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	319	64	806	3,214	2,611	2,032
53	Dyeing, tanning and colouring materials	8,880	8,278	9,283	25,488	26,933	29,320
54	Medicinal and pharmaceutical products	24,841	24,277	25,994	58,919	63,627	65,012
55	Essential oils and perfume materials; toilet and cleansing preparations	7,511	11,330	11,780	18,281	17,542	18,344
56	Fertilisers, manufactured	175	1,327	1,611	6,822	5,831	6,099
57	Explosives and pyrotechnic products	3,167	2,614	2,616	6,668	3,928	4,271
58	Plastic materials, regenerated cellulose and artificial resins	8,806	9,383	10,725	90,011	96,085	105,161
59	Chemical materials, n.e.s.	25,667	31,401	27,503	58,934	54,062	50,596
61	Leather, leather manufactures, n.e.s. and dressed fur skins	5,670	5,905	6,506	6,282	7,370	8,670
62	Rubber manufactures, n.e.s.	9,943	8,701	8,826	59,815	55,886	56,547
63	Wood and cork manufactures (excluding furniture)	4,960	10,498	26,557	17,273	17,819	20,292
64	Paper, paperboard and manufactures	14,388	17,001	17,162	120,058	112,466	121,631
65	Textile yarn, fabrics, made-up articles	23,873	22,119	24,841	301,698	327,136	347,260
66	Non-metallic mineral manufactures, n.e.s.	28,197	29,986	35,082	86,214	88,926	101,115
67	Iron and steel	97,026	116,796	173,365	138,590	121,619	108,663
68	Non-ferrous metals	277,008	296,448	290,995	27,783	22,826	24,224
69	Manufactures of metal, n.e.s.	55,446	56,110	62,210	109,437	101,783	104,448
71	Machinery, other than electric	113,012	129,092	139,786	789,237	717,383	686,798
72	Electrical machinery and apparatus	50,560	54,779	62,708	281,495	291,859	277,368
73	Transport equipment	161,513	190,809	295,807	572,783	473,786	525,250
81	Sanitary, plumbing, heating and lighting fixtures and fittings	2,327	2,452	2,810	6,139	7,152	7,848
82	Furniture	1,720	1,858	1,800	6,314	6,686	8,640
83	Travel goods, handbags, etc.	220	283	288	6,650	7,340	8,099
84	Clothing and accessories; articles of knitted or crocheted fabric	9,579	10,452	11,754	40,725	49,841	63,481
85	Footwear, gaiters and similar articles	975	1,025	1,216	16,859	25,391	22,584
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	26,486	30,967	35,124	138,946	136,392	138,141
89	Manufactured articles, n.e.s.	32,259	53,600	45,307	187,743	198,985	225,859
9(A)	Commodities and transactions not classified according to kind(b)	71,936	73,094	121,318	125,094	136,745	118,976
	<i>Total merchandise</i>	<i>4,242,635</i>	<i>4,773,392</i>	<i>6,072,514</i>	<i>4,098,560</i>	<i>3,954,775</i>	<i>4,071,911</i>
9(B)	Non-merchandise	133,122	119,976	141,190	51,468	53,590	48,816
	Total	4,375,757	4,893,368	6,213,704	4,150,028	4,008,365	4,120,727

(a) Included in Division 9A.

(b) Includes Division 34 (Exports only).

Exports of principal articles of Australian produce
EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE

Article	Quantity			Value (\$'000 f.o.b.)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Meat, fresh, chilled or frozen—						
Of bovine animals—						
Beef—						
Bone-in	'000 kg	32,342	17,960	12,291	21,277	13,627
Boneless	"	300,782	373,662	542,830	275,806	364,669
Other	"	5,977	10,436	27,533	5,977	11,016
Of sheep, lambs and goats	"	175,410	239,459	190,186	74,433	107,438
Meat, canned or bottled	"	21,682	28,183	23,140	15,545	21,954
Sausage casings (natural) . . . . .	"	..	..	..	9,782	11,085
Other meat (including poultry, game, rabbits) . . . . .	"	..	..	..	35,433	39,539
Milk and cream	'000 kg	91,920	78,342	92,452	26,081	32,985
Butter	"	89,247	57,206	75,463	48,040	48,866
Cheese	"	36,460	33,329	29,568	18,378	22,418
Fish (including shell fish), fresh or preserved by cold process	"	15,256	18,226	17,282	50,440	66,939
Wheat	tonnes	9,074,902	8,459,436	5,391,031	433,000	418,529
Barley, unprepared	"	1,122,970	1,816,765	804,122	50,820	74,344
Oats	"	555,917	328,979	114,534	23,827	12,425
Flour (wheaten), plain white	'000 kg	277,547	164,137	156,807	19,586	12,055
Fruit, dried—						
Grapes	"	59,998	56,356	72,710	18,516	17,563
All other	"	2,270	3,423	2,917	1,532	2,207
Fruit, canned or bottled	"	7,295	6,172	8,273	42,890	36,461
Sugar, the produce of cane	tonnes	1,571,250	2,007,983	2,084,430	149,647	210,593
Vine	litres	6,564,498	7,957,189	6,246,587	3,581	4,226
Hides and skins—						
Calf, cattle and horse	'000 kg	71,889	80,640	117,634	20,762	28,137
Sheep and lamb (excluding pieces)	"	117,952	133,427	123,772	49,813	51,657
Timber, wood in the rough, shaped or simply worked	cu m	58,953	70,885	81,551	4,168	5,579
Wool—						
Greasy	'000 kg	650,027	688,051	665,069	493,073	524,518
Scoured or washed, carbonised, tops, noils and waste	"	45,314	57,407	38,811	50,754	57,690
Iron ore and concentrates (except roasted iron pyrites)	tonnes	48,347,533	50,239,080	66,293,938	374,260	375,489
Copper ores and concentrates	"	140,217	141,395	164,254	32,031	27,297
Lead ores and concentrates	"	83,096	93,536	74,143	16,290	15,644
Zinc ores and concentrates	"	383,481	364,146	300,773	25,502	26,184
Titanium and zirconium concentrates	"	1,387,019	1,209,406	1,324,422	57,278	56,955
Coal	"	19,286,351	21,909,238	25,795,068	199,413	238,683
Petroleum and petroleum products . . . . .	"	..	..	..	40,984	59,499
Tallow, inedible	"	139,151	199,675	179,942	22,015	28,049
Leather (excluding leather manufactures) . . . . .	"	..	..	..	4,114	4,263
Lead and lead alloys, unworked	"	306,463	272,105	291,373	86,716	67,673
Copper and copper alloys	"	61,098	75,109	70,216	66,858	70,840
Zinc and zinc alloys	"	136,830	187,772	203,898	35,713	56,825
Machinery and transport equipment . . . . .	"	..	..	..	244,690	296,323
Drugs and chemicals . . . . .	"	..	..	..	185,284	239,782
Paper, pulp and stationery . . . . .	"	..	..	..	18,530	22,895
Motor vehicles (new, assembled)	No.	16,897	19,400	17,655	21,992	31,792
All other articles . . . . .	"	..	..	..	826,115	901,162
Total Australian produce					4,200,946	4,716,417
						5,961,425

Exports, by industrial group

The following table is designed to show fluctuations in exports of Australian produce dissected according to the main industry of their origin, although any such classification is necessarily somewhat conventional.

EXPORTS OF AUSTRALIAN PRODUCE, BY INDUSTRIAL GROUP

Industrial group	Value (\$'000 f.o.b.)			Proportion of value of exports of Australian produce (excluding gold) (per cent)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Agriculture, horticulture and viticulture—						
Unprocessed	597,698	633,001	446,312	14.3	13.5	7.5
Processed	274,644	328,799	385,003	6.6	7.0	6.5
Total agriculture, etc.	872,342	961,800	831,315	20.9	20.5	14.0
Pastoral—						
Unprocessed	974,092	1,137,381	2,081,894	23.3	24.2	35.1
Processed	122,987	143,581	176,838	2.9	3.1	3.0
Total pastoral	1,097,079	1,280,962	2,258,733	26.2	27.3	38.1
Dairy and farmyard—						
Unprocessed	8,045	11,247	27,122	0.2	0.2	0.5
Processed	99,609	109,350	137,323	2.4	2.3	2.3
Total dairy, etc.	107,654	120,597	164,445	2.6	2.5	2.8
Mines and quarries (other than gold)—						
Unprocessed	758,816	817,487	944,609	18.1	17.4	15.9
Processed	278,845	283,327	306,777	6.7	6.1	5.2
Total mines, etc.	1,037,661	1,100,814	1,251,386	24.8	23.5	21.1
Fisheries—						
Unprocessed	53,190	68,363	67,711	1.3	1.4	1.1
Processed	6,572	7,271	7,797	0.1	0.2	0.1
Total fisheries	59,762	75,634	75,508	1.4	1.6	1.3
Forestry—						
Unprocessed	630	404	469	..	..	..
Processed	5,290	6,963	8,670	0.1	0.1	0.1
Total forestry	5,920	7,367	9,139	0.1	0.1	0.2
Total primary produce—						
Unprocessed	2,392,471	2,667,883	3,568,117	57.2	56.8	60.1
Processed	787,947	879,291	1,022,409	18.8	18.7	17.2
Total primary produce	3,180,418	3,547,174	4,590,526	76.0	75.5	77.3
Manufactures	855,520	985,815	1,204,980	20.5	21.0	20.3
Refined petroleum oils	40,080	57,784	43,144	1.0	1.2	0.7
Unclassified	106,677	106,348	98,515	2.5	2.3	1.7
Total Australian produce (excluding gold)	4,182,695	4,697,121	5,937,165	100.0	100.0	100.0
Re-exports (excluding gold)	174,811	176,951	252,279	..	..	..
Gold exports	18,251	19,296	24,260	..	..	..
Total value of recorded exports	4,375,757	4,893,368	6,213,704	..	..	..

The items enumerated indicate how arbitrary is the line necessarily drawn between primary produce and manufactures in any classification of this kind. The value of processed primary products exported includes some element of value added by the simpler processes of manufacture, while the value shown for manufactures exported necessarily includes the value of raw materials (primary produce) used in those manufactures.

Imports of merchandise, by economic class

The following table shows imports of merchandise into Australia classified according to economic classes of (i) purpose and (ii) degree of manufacture.

IMPORTS OF MERCHANDISE, BY ECONOMIC CLASS: AUSTRALIA

	Value (\$'000 f.o.b.)			Proportion of value of imports of merchandise (per cent)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
PURPOSE						
Producers' materials for use in—						
Building and construction	146,947	135,533	167,084	3.6	3.4	4.1
Rural industries	45,383	40,768	47,880	1.1	1.0	1.2
Manufacturing—						
Motor vehicle assembly(a)	288,100	256,379	228,760	7.0	6.5	5.6
Other(b)	1,297,846	1,257,555	1,269,279	31.7	31.8	31.2
<i>Total producers' materials(b)</i>	<i>1,778,276</i>	<i>1,690,234</i>	<i>1,713,002</i>	<i>43.4</i>	<i>42.7</i>	<i>42.1</i>
Capital equipment(c)—						
Producers' equipment	981,930	915,335	855,892	24.0	23.2	21.0
Transport equipment—						
Complete road vehicles and assembled chassis	155,285	159,533	193,853	3.8	4.0	4.8
Railway equipment, vessels and civil aircraft	137,780	90,072	69,382	3.3	2.3	1.7
<i>Total capital equipment</i>	<i>1,274,995</i>	<i>1,164,940</i>	<i>1,119,127</i>	<i>31.1</i>	<i>29.5</i>	<i>27.5</i>
Finished consumer goods—						
Food, beverages and tobacco	157,234	165,121	171,073	3.8	4.2	4.2
Clothing and accessories	57,108	76,438	88,180	1.4	1.9	2.2
All other(d)	580,210	628,298	736,561	14.2	15.9	18.1
<i>Total, finished consumer goods(d)</i>	<i>794,552</i>	<i>869,857</i>	<i>995,814</i>	<i>19.4</i>	<i>22.0</i>	<i>24.5</i>
Fuels and lubricants(e)	61,495	69,406	68,933	1.5	1.8	1.7
Auxiliary aids to production(f)	99,823	100,515	93,505	2.4	2.5	2.3
Munitions and war stores	89,419	59,824	81,530	2.2	1.4	2.0
Grand total	4,098,560	3,954,775	4,071,911	100.0	100.0	100.0
DEGREE OF MANUFACTURE(g)						
Producers' materials—						
Crude	318,073	301,730	322,939	7.8	7.6	7.9
Simply transformed	291,021	291,038	311,201	7.1	7.4	7.6
Elaborately transformed	1,169,182	1,097,466	1,078,861	28.5	27.8	26.5
Finished consumer goods—						
Crude	44,853	39,404	42,302	1.1	1.0	1.0
Simply transformed	56,543	61,469	57,333	1.4	1.6	1.4
Elaborately transformed	693,156	768,984	896,179	16.9	19.4	22.0
Total imports—						
Crude	362,926	341,134	365,241	8.9	8.6	9.0
Simply transformed	474,678	484,272	498,351	11.6	12.3	12.2
Elaborately transformed	3,260,956	3,129,369	3,208,319	79.5	79.1	78.8
Grand total	4,098,560	3,954,775	4,071,911	100.0	100.0	100.0

(a) Owing to insufficient information, it is not possible to treat unassembled tractors and other machinery in a similar manner to motor vehicles, and all such machinery and replacement parts therefor are treated as capital equipment whether imported in an assembled or unassembled condition. (b) Excludes a percentage for piece-goods to be sold at retail, and paper to be used solely for wrapping, which are recorded in Finished consumer goods, All other; and Auxiliary aids to production, respectively. (c) See footnote (a). (d) Includes a percentage for piece-goods to be sold at retail; see footnote (b). (e) Excludes crude petroleum, which is included in Producers' materials, Manufacturing—Other. (f) Includes a percentage for paper to be used solely for wrapping; see footnote (b). (g) The class fuels and lubricants consists of goods 'simply transformed', and the classes Capital equipment and Munitions and war stores entirely of goods 'more elaborately transformed'. The class Auxiliary aids to production is about equally divided between goods 'simply transformed' and 'elaborately transformed'.

Direction of Overseas Trade

Exports and imports, by country of consignment or of origin

The following two tables show the value and percentage of Australian exports and imports according to principal country of consignment or origin. The proportions of Australian exports and imports by country of origin or consignment are shown graphically on plate 33 on page 317.

AUSTRALIAN EXPORTS AND IMPORTS, VALUE BY COUNTRY OF CONSIGNMENT OR ORIGIN

(\$'000 f.o.b.)

Country	Exports			Imports		
	1952-53	1962-63	1972-73	1952-53	1962-63	1972-73
Arab Republic of Egypt	6,748	2,052	40,889	1,826	184	167
Austria	1,204	3,104	4,082	2,390	6,658	12,673
Bahrain	640	1,186	13,541	29,826	362	30,119
Belgium-Luxembourg	64,282	46,372	61,819	11,012	13,996	36,631
Brazil	934	324	4,922	1,802	2,620	9,341
Canada	17,424	38,102	165,259	39,092	91,834	134,400
China, People's Republic of	1,362	129,288	62,847	2,816	11,256	49,922
Denmark	1,332	1,226	5,373	1,016	6,982	15,718
Finland	124	604	10,942	1,766	11,304	24,358
France	152,032	105,970	188,300	18,506	35,556	75,470
Germany, Federal Republic of	44,732	68,368	203,704	27,164	117,324	288,083
Greece	1,638	3,504	30,518	40	1,248	3,707
Hong Kong	9,710	40,468	94,881	1,042	15,254	80,148
India	34,296	37,220	37,396	29,292	36,146	31,678
Indonesia	10,128	6,218	74,623	43,088	58,570	13,597
Iran	654	3,814	25,791	646	38,464	18,488
Iraq	668	884	1,882	342	1,996	20,410
Italy	89,412	88,056	133,661	10,450	39,064	86,608
Japan	167,916	346,166	1,932,316	9,384	129,378	738,950
Korea, Republic of	(a)	6,364	52,895	(a)	412	10,434
Kuwait	(a)	4,330	15,760	(a)	38,116	30,230
Malaysia	(a)	29,758	97,216	(a)	34,164	38,445
Nauru	1,004	3,150	4,671	2,598	6,128	12,131
Netherlands	16,162	14,340	63,837	11,908	27,472	55,802
New Caledonia	5,076	4,870	19,490	186	1,246	699
New Zealand	57,354	131,132	325,901	7,998	35,490	129,954
Norway	1,472	5,132	13,123	4,840	7,230	11,932
Pakistan	9,048	14,116	7,122	4,536	11,428	4,576
Papua New Guinea	12,280	38,538	134,697	9,500	14,662	24,669
Philippines	1,002	12,486	49,306	106	1,518	7,786
Poland	7,288	12,432	54,752	88	1,128	3,760
Saudi Arabia	(a)	3,706	13,697	(a)	40,004	20,206
Singapore	25,588	33,694	131,808	11,716	6,836	40,069
South Africa, Republic of	7,280	18,982	95,102	6,200	16,252	20,621
Spain	346	10,100	22,480	1,304	4,554	20,091
Sri Lanka	29,374	12,910	10,950	19,572	17,068	9,620
Sweden	5,776	6,534	22,602	13,572	35,824	83,011
Switzerland	4,336	1,750	7,658	8,112	28,392	65,946
Taiwan	1,480	4,056	69,788	108	1,148	54,342
Thailand	2,448	7,408	35,864	74	868	7,110
United Kingdom	718,514	401,628	601,628	429,404	658,462	767,784
United States of America	115,674	265,758	758,889	170,336	460,092	859,865
U.S.S.R.	3,284	29,232	123,684	1,462	1,056	2,978
Yugoslavia	958	11,876	49,764	190	394	828
Other countries	111,564	129,212	333,271	92,320	92,404	148,453
'For Orders' and Country of origin or destination unknown	..	15,392	5,003	588	2,126	18,917
Total	1,742,544	2,151,812	6,213,704	1,028,218	2,162,670	4,120,727

(a) Comparable figures not available.

**AUSTRALIAN EXPORTS AND IMPORTS, PROPORTIONS, BY COUNTRY OF
CONSIGNMENT OR ORIGIN**

(Per cent)

Country	Exports			Imports		
	1952-53	1962-63	1972-73	1952-53	1962-63	1972-73
Arab Republic of Egypt	0.39	0.10	0.66	0.18	0.01	0.00
Austria	0.07	0.14	0.07	0.23	0.31	0.31
Bahrain	0.04	0.06	0.22	2.90	0.02	0.73
Belgium-Luxembourg	3.69	2.16	0.99	1.07	0.65	0.89
Brazil	0.05	0.02	0.08	0.18	0.12	0.23
Canada	0.99	1.77	2.66	3.80	4.25	3.26
China, People's Republic of	0.08	6.01	1.01	0.27	0.52	1.21
Denmark	0.08	0.06	0.09	0.10	0.32	0.38
Finland	0.01	0.03	0.18	0.17	0.52	0.59
France	8.72	4.92	3.03	1.80	1.64	1.83
Germany, Federal Republic of	2.57	3.18	3.28	2.64	5.42	6.99
Greece	0.09	0.16	0.49	0.00	0.06	0.09
Hong Kong	0.56	1.88	1.53	0.10	0.71	1.94
India	1.97	1.73	0.60	2.85	1.67	0.77
Indonesia	0.58	0.29	1.20	4.19	2.71	0.33
Iran	0.04	0.18	0.42	0.06	1.78	0.45
Iraq	0.04	0.04	0.03	0.03	0.09	0.50
Italy	5.13	4.09	2.15	1.02	1.81	2.10
Japan	9.64	16.09	31.10	0.91	5.98	17.93
Korea, Republic of	(a)	0.30	0.85	(a)	0.02	0.25
Kuwait	(a)	0.20	0.25	(a)	1.76	0.73
Malaysia	(a)	1.38	1.56	(a)	1.58	0.93
Nauru	0.06	0.15	0.08	0.25	0.28	0.29
Netherlands	0.93	0.67	1.03	1.16	1.27	1.35
New Caledonia	0.29	0.23	0.31	0.02	0.06	0.02
New Zealand	3.29	6.09	5.24	0.78	1.64	3.15
Norway	0.08	0.24	0.21	0.47	0.33	0.29
Pakistan	0.52	0.66	0.11	0.44	0.53	0.11
Papua New Guinea	0.70	1.79	2.17	0.92	0.68	0.60
Philippines	0.06	0.58	0.79	0.01	0.07	0.19
Poland	0.42	0.58	0.88	0.01	0.05	0.09
Saudi Arabia	(a)	0.17	0.22	(a)	1.85	0.49
Singapore	1.47	1.57	2.12	1.14	0.32	0.97
South Africa, Republic of	0.42	0.88	1.53	0.60	0.75	0.50
Spain	0.02	0.47	0.36	0.13	0.21	0.49
Sri Lanka	1.69	0.60	0.18	1.90	0.79	0.23
Sweden	0.33	0.30	0.36	1.32	1.66	2.01
Switzerland	0.25	0.08	0.12	0.79	1.31	1.60
Taiwan	0.08	0.19	1.12	0.01	0.05	1.32
Thailand	0.14	0.34	0.58	0.01	0.04	0.17
United Kingdom	41.23	18.66	9.68	41.76	30.45	18.63
United States of America	6.64	12.35	12.21	16.57	21.27	20.87
U.S.S.R.	0.19	1.36	1.99	0.14	0.05	0.07
Yugoslavia	0.05	0.55	0.80	0.02	0.02	0.02
Other countries	6.40	6.00	5.36	8.98	4.27	3.60
'For Orders' and Country of origin or destination unknown . . . . .	..	0.72	0.08	0.06	0.10	0.46
Total	100.00	100.00	100.00	100.00	100.00	100.00

(a) Comparable figures not available.

Exports and Imports, by country of consignment and origin, and by description

The following table shows details of exports to and imports from principal countries, classified according to divisions of the Australian Export and Import Commodity Classifications.

EXPORTS AND IMPORTS BY COUNTRY OF CONSIGNMENT AND ORIGIN: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1972-73

(\$'000 f.o.b.)

Division No.	Description	Arab Republic of Egypt		Belgium-Luxembourg		Canada	
		Exports	Imports	Exports	Imports	Exports	Imports
00	Live animals					500	
01	Meat and meat preparations	515		959		50,245	20
02	Dairy products and eggs	5			30	4,667	
03	Fish and fish preparations			43	6	265	1,706
04	Cereal grains and cereal preparations	32,906		7	43	31	106
05	Fruit and vegetables	1	13	626	274	13,692	299
06	Sugar and sugar preparations and honey	1		1,205	9	47,924	34
07	Coffee, tea, cocoa, spices and manufactures thereof				9	222	13
08	Feeding-stuff for animals (except unmilled cereals)					18	
09	Miscellaneous preparations chiefly for food			1	23	17	194
11	Beverages	1			3	1,450	94
12	Tobacco and tobacco manufactures				10		51
21	Hides, skins and fur skins, undressed	159		266	3	51	23
22	Oil-seeds, oil nuts and oil kernels			1,168			1,757
23	Crude rubber (including synthetic and reclaimed)				456	1	220
24	Wood, timber and cork			845	23	19	18,309
25	Pulp and waste paper						11,304
26	Textile fibres and their waste	7,054		33,391	515	2,957	1,663
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)			3	45		13,384
28	Metalliferous ores and metal scrap	32		13,734		11,080	2,581
29	Crude animal and vegetable materials, n.e.s.		25	303	35	912	739
32	Coal, coke and briquettes			4,728			
33	Petroleum and petroleum products			19	25	1	66
34	Petroleum gases and other gaseous hydrocarbons	(a)		(a)		(a)	
41	Animal oils and fats			44		29	
42	Fixed vegetable oils and fats				1		101
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin				6	24	17
51	Chemical elements and compounds			19	3,000	14,641	2,844
52	Mineral tar and crude chemicals from coal, petroleum and natural gas						71
53	Dyeing, tanning and colouring materials				197	50	305
54	Medicinal and pharmaceutical products			78	584	38	421
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations		1	51	44	14	180
56	Fertilisers, manufactured			5	24		2,089
57	Explosives and pyrotechnic products			29	74		93
58	Plastic materials, regenerated cellulose and artificial resins			3	596	4	4,404
59	Chemical materials and products, n.e.s.			19	762	853	857
61	Leather, leather manufactures, n.e.s., and dressed fur skins			3	114	111	99
62	Rubber manufactures, n.e.s.			3	618	123	483
63	Wood and cork manufactures (except furniture)			13	117	9	248
64	Paper, paperboard and manufactures thereof				1,452	66	25,701
65	Textile yarn, fabrics, made-up articles and related products	9	111	17	3,051	196	4,666
66	Non-metallic mineral manufactures, n.e.s.			197	7,413	983	2,606
67	Iron and steel			81	711	2,057	1,284
68	Non-ferrous metals	(a)		(a)	164	(a)	2,866
69	Manufactures of metals, n.e.s.	94		593	1,105	1,667	4,916
71	Machinery (except electric)	16		353	5,163	2,617	11,434
72	Electric machinery, apparatus and appliances	23		390	6,255	565	4,645
73	Transport equipment	2		130	68	2,103	2,596
81	Sanitary, plumbing, heating and lighting fixtures and fittings				12	4	189
82	Furniture			3	3	1	89
83	Travel goods, handbags and similar articles				3	10	6
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	3		355	89	1,101	330
85	Footwear, gaiters, and similar articles and parts thereof					8	16
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks		11	166	1,757	1,023	1,887
89	Miscellaneous manufactured articles, n.e.s.		3	138	947	775	2,966
9A	Commodities and transactions of merchandise trade, not elsewhere classified(b)	2	1	1,742	700	1,330	3,081
	<i>Total merchandise</i>	<i>40,824</i>	<i>166</i>	<i>61,728</i>	<i>36,540</i>	<i>164,457</i>	<i>134,059</i>
9B	Commodities and transactions not included in merchandise trade	65	1	91	91	802	342
	Grand total	40,889	167	61,819	36,631	165,259	134,400

(a) Included in Division 9A.

(b) Includes Division 34 and 68 (Exports only).

EXPORTS AND IMPORTS BY COUNTRY OF CONSIGNMENT AND ORIGIN: DIVISIONS
OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1972-73--
continued

(\$'000 f.o.b.)

Div. No.	China, People's Republic of		France		Germany, Federal Republic of		Hong Kong		India	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
00	..	..	121	..	..	..	161	..	10	..
01	..	11	6,972	40	2,487	53	1,723	..	17	3
02	..	..	..	268	..	134	5,175	..	113	..
03	..	506	2,882	85	284	465	2,704	369	1	1,923
04	16,540	50	19	25	3,468	120	7,097	97	57	22
05	..	779	2,100	221	14,017	230	2,913	209	64	1,698
06	5,536	25	..	10	197	17	95	78	5	..
07	..	176	3	28	..	170	380	58	3	3,262
08	..	..	8	42	558	333	115	..	..	..
09	..	85	2	42	..	192	400	197	4	4
11	1	2	..	4,286	4	819	407	8	17	..
12	..	81	..	100	..	20	261	..	..	35
21	2,954	73	70,970	75	17,781	..	1,179	..	32	1
22	..	121	1	..	27	..	15	156	1	17
23	..	..	..	395	..	298	..	..	..	..
24	..	..	81	51	269	7	55	169	..	1
25	..	..	..	109	..	..	..	..	..	..
26	19,422	597	82,570	74	67,151	1,957	12,486	168	12,053	1,217
27	..	143	6	124	96	136	6	5	..	192
28	961	106	8,848	34	30,339	13	422	..	1,020	..
29	1	1,762	268	218	3,418	300	279	268	1	437
32	..	..	1,413	..	808	247	..	..	..	..
33	..	306	5	89	8	312	11	198	2	..
34	(a)	..	(a)	16	(a)	..	(a)	..	(a)	..
41	2,270	..	447	..	730	..	61	..	4,762	..
42	..	331	..	9	..	73	5	50	..	820
43	..	..	..	9	35	25	107	..	..	6
51	34	850	1	4,102	6,558	12,488	550	111	140	518
52	..	..	..	3	..	1	5	..	..	..
53	..	30	4	1,124	138	6,954	276	19	38	49
54	..	117	59	482	124	12,270	1,060	17	96	59
55	10	246	52	1,921	39	1,304	919	698	18	72
56	..	..	..	331	..	595	2	..	..	..
57	..	56	49	31	371	131	94	..	..	..
58	33	6	47	3,681	35	10,616	778	250	133	..
59	..	1,684	1	615	141	3,727	580	134	34	3
61	..	19	50	761	408	464	776	20	7	400
62	..	19	5	1,796	42	3,938	112	23	5	5
63	..	126	1	169	363	623	30	141	..	102
64	..	330	1	1,028	29	3,721	1,455	336	19	24
65	2	25,904	29	4,159	142	14,062	1,197	25,790	4	13,489
66	1	1,108	205	2,866	1,898	6,758	7,818	745	61	1,218
67	13,130	122	8	1,003	15,974	3,364	6,431	6	2,653	633
68	(a)	89	(a)	232	(a)	1,022	(a)	79	(a)	..
69	..	550	293	1,051	356	9,970	1,958	1,624	8	346
71	..	163	631	9,710	1,670	82,921	2,918	490	887	1,268
72	..	144	610	4,551	1,081	22,706	2,003	1,456	151	246
73	18	32	609	17,716	885	43,926	4,878	283	319	21
81	..	61	..	135	2	819	239	593	..	25
82	..	47	3	114	19	231	235	558	2	75
83	..	148	..	48	..	112	21	3,139	..	48
84	2	8,331	67	1,190	248	721	1,358	18,624	2	1,859
85	..	1,658	..	670	2	230	83	1,859	3	668
86	..	737	463	2,470	696	17,821	2,236	1,922	12	49
89	7	1,268	187	2,803	383	11,792	4,488	17,328	22	469
9A(b)	1,919	911	7,702	3,770	28,327	6,181	7,779	1,767	14,220	353
	62,841	49,908	187,794	74,888	201,607	285,391	86,331	80,045	36,995	31,636
9B	6	14	506	582	2,097	2,692	8,550	103	401	42
	62,847	49,922	188,300	75,470	203,704	288,083	94,881	80,148	37,396	31,678

(a) Included in Division 9A. (b) Includes Division 34 and 68 (Exports only).

EXPORTS AND IMPORTS BY COUNTRY OF CONSIGNMENT AND ORIGIN: DIVISIONS
 OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1972-73—
continued

(\$'000 f.o.b.)

Division No.	Description	Indonesia		Italy		Japan	
		Exports	Imports	Exports	Imports	Exports	Imports
00	Live animals	40	..	..	..	475	..
01	Meat and meat preparations	175	..	2,597	158	188,972	20
02	Dairy products and eggs	6,408	..	22	900	22,921	..
03	Fish and fish preparations	8	30	54	77	24,085	11,450
04	Cereal grains and cereal preparations	5,889	..	3,352	126	111,489	261
05	Fruit and vegetables	467	1	648	1,325	7,061	442
06	Sugar and sugar preparations and honey	66	..	..	54	74,271	342
07	Coffee, tea, cocoa, spices and manufactures thereof	57	8,447	..	78	5,957	2,104
08	Feeding-stuff for animals (except unmilled cereals)	22	..	96	6	12,219	402
09	Miscellaneous preparations chiefly for food	265	2	..	104	114	199
11	Beverages	197	..	5	1,333	138	53
12	Tobacco and tobacco manufactures	18	68	..	4	..	7
21	Hides, skins and fur skins, undressed . . . . .	..	1	21,674	..	19,383	..
22	Oil-seeds, oil nuts and oil kernels . . . . .	..	..	184	..	4,574	7
23	Crude rubber (including synthetic and re- claimed)	1	1,186	..	5	1	671
24	Wood, timber and cork	15	1,625	9	3	93	130
25	Pulp and waste paper	176	20	..	..	21	88
26	Textile fibres and their waste	696	2	68,341	155	500,747	7,948
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	142	74	75	302	12,710	1,898
28	Metalliferous ores and metal scrap	130	..	15,264	..	505,019	119
29	Crude animal and vegetable materials, n.e.s.	29	27	1,220	92	3,956	514
32	Coal, coke and briquettes . . . . .	..	..	6,811	..	260,854	3
33	Petroleum and petroleum products	427	1,413	43	10	11,168	1,214
34	Petroleum gases and other gaseous hydro- carbons	(a)	..	(a)	..	(a)	..
41	Animal oils and fats	191	..	236	..	8,060	2
42	Fixed vegetable oils and fats	5	..	..	326	..	553
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	101	..	12	..	15	36
51	Chemical elements and compounds	1,375	1	..	1,141	27,972	25,957
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	1	..	..	..	69	105
53	Dyeing, tanning and colouring materials	423	..	3	231	371	1,392
54	Medicinal and pharmaceutical products	514	57	86	510	1,607	1,664
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	423	106	72	351	1,628	441
56	Fertilisers, manufactured	516	..	..	..	10	304
57	Explosives and pyrotechnic products	3	..	64	49	1	145
58	Plastic materials, regenerated cellulose and artificial resins	167	..	..	929	83	20,615
59	Chemical materials and products, n.e.s.	281	..	42	73	6,184	2,341
61	Leather, leather manufactures, n.e.s., and dressed fur skins	2	1	48	426	602	657
62	Rubber manufactures, n.e.s.	395	..	7	1,269	11	16,085
63	Wood and cork manufactures (except furni- ture)	98	53	5	499	23,110	1,291
64	Paper, paperboard and manufactures thereof	703	..	6	1,744	59	11,321
65	Textile yarn, fabrics, made-up articles and related products	169	28	51	6,675	2,102	112,444
66	Non-metallic mineral manufactures, n.e.s.	801	2	56	3,277	5,586	24,302
67	Iron and steel	4,455	..	6,830	544	8,890	67,385
68	Non-ferrous metals	(a)	..	(a)	272	(a)	4,103
69	Manufactures of metal, n.e.s.	1,628	8	287	1,950	3,021	19,371
71	Machinery (except electric)	7,963	2	511	23,023	2,371	82,136
72	Electric machinery, apparatus and appliances	1,979	..	359	10,085	1,772	64,810
73	Transport equipment	18,951	2	199	9,014	6,285	167,232
81	Sanitary, plumbing, heating and lighting fix- tures and fittings	219	1	1	784	29	867
82	Furniture	27	30	..	1,026	186	1,211
83	Travel goods, handbags and similar articles	4	1	..	254	36	1,455
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	206	13	51	1,775	398	2,597
85	Footwear, gaiters, and similar articles and parts thereof	32	30	1	5,020	9	1,610
86	Professional, scientific and controlling in- struments; photographic and optical goods, watches and clocks	378	2	313	3,016	1,125	22,739
89	Miscellaneous manufactured articles, n.e.s.	313	45	133	5,849	2,965	38,958
9A	Commodities and transactions of merchan- dise trade, not elsewhere classified(b)	10,678	278	3,508	1,239	57,098	14,052
	<i>Total merchandise</i>	<i>68,230</i>	<i>13,557</i>	<i>133,274</i>	<i>86,083</i>	<i>1,927,884</i>	<i>736,048</i>
9B	Commodities and transactions not included in merchandise trade	6,393	40	387	525	4,432	2,902
	Grand total	74,623	13,597	133,661	86,608	1,932,316	738,950

(a) Included in Division 9A. (b) Includes Division 34 and 68 (Exports only).

EXPORTS AND IMPORTS BY COUNTRY OF CONSIGNMENT AND ORIGIN: DIVISIONS
OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1972-73—
continued
(\$'000 f.o.b.)

Div. No.	Malaysia		Netherlands		New Zealand		Pakistan		Papua New Guinea	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
00	393	..	..	..	1,279	5,633	8	..	156	..
01	1,342	..	2,119	..	567	174	1	..	9,703	..
02	8,733	..	13	1,121	236	1,797	42	..	2,206	..
03	64	2,934	64	933	342	2,924	1	186	342	843
04	16,617	3	392	449	802	2,017	1,436	40	11,248	..
05	1,077	113	3,624	384	5,755	4,448	6	39	1,726	1,227
06	10,671	..	34	164	11,335	967	..	..	3,119	..
07	943	872	..	559	436	507	..	9	812	9,724
08	407	..	..	62	28	50	..	..	1,008	..
09	173	10	3	108	784	265	..	..	758	..
11	215	..	1	159	607	82	1	..	2,360	7
12	3	..	1	6,252	244	39	..	..	1,548	89
21	215	..	3,344	1	1,277	623	9	..	..	2
22	..	..	143	67	445	28	..	..	2	1,863
23	..	12,637	..	348	554	1	..	..	35	2,107
24	..	15,795	349	1	870	5,758	..	..	14	2,567
25	91	..	1	..	..	9,895	..	..	6	..
26	3	67	12,713	1,077	2,640	14,531	3,101	861	283	..
27	138	7	328	8	1,279	117	..	..	153	1
28	4,619	69	8,282	..	215	2,163	35	..	8	269
29	307	128	701	792	1,033	2,409	1	72	230	22
32	15	..	7,625	2	323	..	..	..	2	..
33	1,229	8	7	167	14,025	4	1	191	1,458	18
34	(a)	..	(a)	20	(a)	..	(a)	..	(a)	..
41	1,027	1	1,168	..	13	5	54	..	391	..
42	4	1,428	..	7	65	1	..	..	108	1,722
43	71	6	9	587	76	11	4	..	67	..
51	1,389	94	1,086	2,727	16,719	736	220	..	463	..
52	69	..	..	5	599	2	..	..	7	..
53	417	..	22	356	3,006	213	..	..	446	..
54	1,111	97	58	1,420	12,930	1,284	17	..	672	..
55	1,372	36	10	273	1,716	638	5	..	1,657	..
56	75	..	..	108	75	33	..	..	146	..
57	..	..	13	..	904	12	..	..	392	..
58	231	121	23	3,159	4,232	877	12	..	1,012	..
59	489	6	3	1,721	2,045	328	11	..	541	220
61	283	..	29	16	409	461	..	215	20	..
62	57	625	20	603	1,676	384	6	..	1,440	..
63	19	642	1	95	1,153	498	..	3	208	2,473
64	2,354	1	16	1,728	2,527	18,907	150	..	3,199	1
65	366	1,517	70	3,476	15,229	17,269	5	1,930	786	10
66	708	3	80	487	2,632	1,259	38	2	1,766	1
67	2,782	..	943	41	26,804	153	1,417	..	4,891	..
68	(a)	200	(a)	175	(a)	143	(a)	..	(a)	20
69	2,370	102	293	588	10,902	2,409	159	71	5,925	38
71	5,987	40	419	6,375	25,658	5,194	35	4	10,953	68
72	4,071	51	1,868	7,932	15,001	9,487	69	..	8,266	23
73	4,257	4	2,019	1,774	79,254	4,735	66	..	6,729	22
81	234	4	12	75	272	206	..	5	533	4
82	68	12	11	179	121	570	..	8	613	2
83	6	..	..	9	30	622	..	7	57	1
84	453	4	61	111	622	2,146	8	382	1,079	3
85	8	130	..	32	192	372	..	24	516	5
86	513	6	264	4,648	7,772	465	44	155	1,717	10
89	421	193	64	2,793	10,986	3,810	1	336	2,976	88
9A(b)	7,556	454	15,286	1,401	23,686	1,815	58	30	28,624	308
	86,019	38,427	63,592	55,574	312,379	129,475	7,021	4,573	123,379	23,760
9B	11,197	18	245	228	13,522	479	101	3	11,318	909
	97,216	38,445	63,837	55,802	325,901	129,954	7,122	4,576	134,697	24,669

(a) Included in Division 9A. (b) Includes Division 34 and 68 (Exports only).

EXPORTS AND IMPORTS BY COUNTRY OF CONSIGNMENT AND ORIGIN: DIVISIONS
OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1972-73—
continued
(\$'000 f.o.b.)

Division No.	Description	Philippines		Singapore		South Africa, Republic of	
		Exports	Imports	Exports	Imports	Exports	Imports
00	Live animals	49	..	1,930	..	107	..
01	Meat and meat preparations	516	..	5,397	1	195	..
02	Dairy products and eggs	9,379	..	5,487	..	32	..
03	Fish and fish preparations	1	10	498	728	1,114	2,914
04	Cereal grains and cereal preparations	6,603	..	11,737	15	1,072	23
05	Fruit and vegetables	389	408	7,190	40	529	243
06	Sugar and sugar preparations and honey	1	..	7,917	..	12	11
07	Coffee, tea, cocoa, spices and manufactures thereof	..	42	444	417	17	..
08	Feeding-stuff for animals (except unmilled cereals)	1,508	1	1,231	12	2	846
09	Miscellaneous preparations chiefly for food	1	..	481	63	86	105
11	Beverages	9	6	772	1	3	14
12	Tobacco and tobacco manufactures	..	256	175	..	..	596
21	Hides, skins and fur skins, undressed	17	..	169	..	1,755	11
22	Oil-seeds, oil nuts and oil kernels	1	..	2	..	8	13
23	Crude rubber (including synthetic and re-claimed)	60	..	20	184	..	..
24	Wood, timber and cork	..	3,046	1	494	183	..
25	Pulp and waste paper	..	1	11	..	..	2
26	Textile fibres and their waste	..	85	187	..	409	211
27	Crude fertilisers and crude minerals (except coal, petroleum and precious stones)	97	..	294	..	193	3,317
28	Metalliferous ores and metal scrap	59	149	1,234	9	1,139	23
29	Crude animal and vegetable materials, n.e.s.	24	48	370	190	434	186
32	Coal, coke and briquettes	..	..	..	..	..	104
33	Petroleum and petroleum products	489	1	2,741	28,005	981	30
34	Petroleum gases and other gaseous hydro-carbons	(a)	..	(a)	..	(a)	..
41	Animal oils and fats	619	..	836	..	3,064	50
42	Fixed vegetable oils and fats	..	3	7	46	..	23
43	Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin	52	..	40	..	..	43
51	Chemical elements and compounds	943	422	601	8	7,520	1,101
52	Mineral tar and crude chemicals from coal, petroleum and natural gas	19	..	..	248	..	..
53	Dyeing, tanning and colouring materials	640	..	936	..	162	453
54	Medicinal and pharmaceutical products	368	1	965	614	725	3
55	Essential oils and perfume materials; toilet, polishing and cleansing preparations	94	1	1,288	11	165	7
56	Fertilisers, manufactured	174	..	332	..	..	..
57	Explosives and pyrotechnic products	1	108	..	..	9	135
58	Plastic materials, regenerated cellulose and artificial resins	257	10	852	321	496	17
59	Chemical materials and products, n.e.s.	210	1	477	5	312	104
61	Leather, leather manufactures, n.e.s., and dressed fur skins	119	1	746	..	356	12
62	Rubber manufactures, n.e.s.	144	26	184	22	223	77
63	Wood and cork manufactures (except furniture)	27	1,185	138	723	147	256
64	Paper, paperboard and manufactures thereof	205	8	2,003	28	505	215
65	Textile yarn, fabrics, made-up articles and related products	119	587	1,129	2,292	646	658
66	Non-metallic mineral manufactures, n.e.s.	497	129	1,495	370	298	1,878
67	Iron and steel	9,557	..	4,465	47	1,856	4,297
68	Non-ferrous metals	(a)	..	(a)	..	(a)	166
69	Manufactures of metal, n.e.s.	1,945	1	4,697	239	2,786	501
71	Machinery (except electric)	3,939	44	10,781	271	10,106	652
72	Electric machinery, apparatus and appliances	698	23	3,893	575	3,193	248
73	Transport equipment	3,467	13	14,613	41	50,067	30
81	Sanitary, plumbing, heating and lighting fixtures and fittings	2	4	529	2	34	10
82	Furniture	8	170	112	197	3	4
83	Travel goods, handbags and similar articles	..	10	36	29	19	4
84	Clothing and clothing accessories; articles of knitted or crocheted fabric	62	149	1,253	588	174	55
85	Footwear, gaiters, and similar articles and parts thereof	..	126	80	108	2	8
86	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	1,033	3	2,368	171	1,023	243
89	Miscellaneous manufactured articles, n.e.s.	300	520	1,610	2,033	1,093	94
9A	Commodities and transactions of merchandise trade, not elsewhere classified(b)	3,984	145	5,359	814	1,006	428
	<i>Total merchandise</i>	<i>48,689</i>	<i>7,742</i>	<i>110,114</i>	<i>39,963</i>	<i>94,262</i>	<i>20,421</i>
9B	Commodities and transactions not included in merchandise trade	617	44	21,694	106	840	200
	Grand total	49,306	7,786	131,808	40,069	95,102	20,621

(a) Included in Division 9A. (b) Includes Division 34 and 68 (Exports only).

EXPORTS AND IMPORTS BY COUNTRY OF CONSIGNMENT AND ORIGIN: DIVISIONS OF THE AUSTRALIAN EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1972-73—
continued
(\$'000 f.o.b.)

Div. No.	Sweden		Taiwan		United Kingdom		United States of America		U.S.S.R.	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
00	..	..	268	..	13	1,012	558	147	..	..
01	9,627	..	446	..	146,340	627	367,186	5	..	..
02	..	175	6,840	1	32,275	68	1,842	295	..	..
03	41	23	47	234	3,329	7,577	36,224	1,820	..	487
04	15	292	15,073	6	35,730	1,527	828	122	41,002	..
05	4,012	16	345	1,556	39,460	778	6,402	3,382	..	2
06	51	2	..	..	42,078	899	26,912	97	11,412	3
07	..	2	1	69	4	1,451	70	382	..	..
08	..	6	771	5	84	38	159	2,697	..	..
09	..	5	21	173	158	976	780	718	..	..
11	1	1	9	..	914	11,913	539	960	..	10
12	..	134	..	..	1	1,493	72	14,889	..	..
21	1,563	22	751	..	7,220	182	1,906	167	851	53
22	..	..	..	..	651	219	61	845	..	..
23	..	..	..	..	7	688	5	5,309	..	..
24	22	48	..	300	2,655	86	275	17,821	..	..
25	..	4,947	66	..	4	2	..	7,084	..	..
26	260	1,114	27,533	365	56,417	3,714	18,220	7,266	70,269	..
27	..	50	250	..	106	1,874	659	5,721	..	..
28	419	..	953	..	30,095	10	39,827	259	..	..
29	262	18	130	67	2,526	4,229	2,466	2,933	..	3
32	..	..	185	..	1,519	6	9	95	..	..
33	75	8	17	426	1,597	1,107	1,357	7,147	..	18
34	(a)	11	(a)	..	(a)	..	(a)	22	(a)	..
41	..	..	1,014	..	1,375	53	168	98	..	..
42	..	4	..	..	..	37	..	2,375	..	36
43	..	..	115	..	30	420	5	709	..	..
51	14	708	832	263	5,308	27,307	71,879	45,113	..	717
52	..	..	..	..	..	60	7	1,537	..	..
53	5	22	522	3	130	9,218	334	4,291	..	..
54	..	1,178	19	..	1,470	17,607	473	12,189	..	87
55	..	11	6	32	124	5,331	165	4,639	..	10
56	..	8	..	..	..	25	..	2,544	..	..
57	14	53	..	72	230	1,654	43	1,499	..	..
58	3	337	161	591	857	31,772	194	24,882	..	..
59	21	387	88	2	3,313	17,451	10,512	18,641	..	..
61	20	41	100	103	1,646	3,496	171	615	..	..
62	2	496	19	1,208	340	16,262	2,967	9,151	..	..
63	9	468	1	5,402	374	919	178	249	..	2
64	21	7,532	2	50	45	10,582	996	18,872	..	..
65	..	1,039	24	14,466	499	40,826	892	19,909	..	125
66	11	831	282	1,291	1,455	19,901	4,261	12,161	1	148
67	61	5,033	2,387	82	4,886	12,572	16,735	7,868	..	..
68	(a)	203	(a)	21	(a)	7,939	(a)	4,432	(a)	604
69	207	3,988	360	1,299	4,143	28,587	5,398	21,803	..	1
71	280	22,301	1,438	1,022	8,143	181,069	15,321	226,099	..	438
72	784	7,575	650	2,642	5,539	64,981	3,211	57,996	18	47
73	75	19,358	1,543	2,333	17,199	95,787	44,707	150,088	1	5
81	..	297	..	197	66	1,611	22	859	..	..
82	1	62	..	1,002	27	1,804	30	555	..	..
83	..	57	..	1,055	3	539	35	141	..	..
84	77	159	21	9,695	1,704	7,447	1,363	2,795	..	..
85	6	132	5	3,935	42	2,168	114	108	..	..
86	150	754	157	359	5,361	29,308	3,976	35,552	32	62
89	39	720	73	3,028	7,718	64,397	4,719	53,191	2	59
9A(b)	4,007	2,007	6,205	951	100,056	22,972	48,289	30,566	1	45
	22,154	82,634	69,729	54,308	575,267	764,577	743,523	851,710	123,589	2,963
9B	448	377	59	34	26,361	3,207	15,366	8,155	95	15
	22,602	83,011	69,788	54,342	601,628	767,784	758,889	859,865	123,684	2,978

(a) Included in Division 9A. (b) Includes Division 34 and 68 (Exports only).

NOTE: For description of Division Nos. see previous page.

Trade with eastern countries

Details of exports to and imports from eastern countries are shown in the following table. Further information for principal eastern countries, by divisions of the Australian Export and Import Commodity Classifications, is shown in the tables on pages 325-30.

TRADE OF AUSTRALIA WITH EASTERN COUNTRIES, BY COUNTRY OF
CONSIGNMENT OR ORIGIN
(\$'000 f.o.b.)

Country	Exports			Imports		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Bangladesh	(a)	1,743	11,802	(a)	946	6,222
Bhutan		1				8
Brunei	1,121	1,359	594	7,061	2,995	971
Burma	2,771	3,709	2,146	231	240	219
China, People's Republic of	63,277	37,257	62,847	31,584	41,318	49,922
Hong Kong	90,403	100,386	94,881	61,116	68,121	80,148
India	38,031	36,394	37,396	32,230	35,215	31,678
Indonesia	39,076	57,209	74,623	22,523	14,312	13,597
Japan	1,190,858	1,360,096	1,932,316	573,581	628,569	738,950
Khmer, Republic of	1,700	4,431	984	47	106	127
Korea, Democratic People's Republic of	1,634	2,623	186		15	69
Korea, Republic of	9,685	37,974	52,895	5,762	6,369	10,434
Laos	274	235	155			
Macao		20	50	42	36	56
Malaysia	66,494	70,106	97,216	32,740	31,030	38,445
Nepal	802	150	495	10	33	83
Pakistan	16,112	6,002	7,122	14,552	7,426	4,576
Philippines	40,935	45,913	49,306	4,962	5,752	7,786
Singapore	118,397	118,463	131,808	23,303	38,437	40,069
Sri Lanka	14,199	8,037	10,950	12,073	11,989	9,620
Taiwan	40,009	55,680	69,788	22,854	35,147	54,342
Thailand	32,290	37,305	35,864	3,918	7,415	7,110
Timor	539	964	1,186			
Vietnam, Democratic Republic of			9			
Vietnam, Republic of	15,117	8,017	8,838	98	13	34
Total	1,783,724	1,994,074	2,683,557	848,687	935,484	1,094,466

(a) Included with Pakistan.

Ships' and aircraft stores

Ships' and aircraft stores loaded on overseas ships and aircraft are excluded from exports. The value of these stores is shown in the table below.

STORES LOADED ON BOARD OVERSEAS VESSELS AND
AIRCRAFT: AUSTRALIA
(\$A'000 f.o.b.)

Stores	1970-71	1971-72	1972-73
Cigarettes, cigars and tobacco	694	865	752
Fuel, lubricating oil and lubricants	43,183	43,582	41,701
Foodstuffs for human consumption—			
Meats	2,493	2,032	1,882
Sugar	45	45	36
Milk and cream, preserved	68	70	36
Butter	165	218	70
Cheese	84	55	40
Eggs in shell	314	264	137
Seafoods	693	540	295
Prepared grains	167	140	68
Vegetables	841	640	384
Fruit	491	427	201
Tea	11	19	9
Other	689	821	795
Fodder	47	33	141
Alcoholic beverages	2,077	2,177	2,138
Coal	7	1	2
Other ships' stores	7,686	7,187	6,570
Total	59,755	59,116	55,257

Overseas trade at customs ports

The following table shows the value of exports and imports at customs ports of Australia, and the totals for each State and Territory.

OVERSEAS TRADE: CUSTOMS PORTS, AUSTRALIA, 1972-73
(\$'000 f.o.b.)

Port or customs station	Exports	Imports	Port or customs station	Exports	Imports
New South Wales—			South Australia—continued		
Sydney	969,223	1,443,823	Port Wallaroo	9,298	360
Botany Bay (Kurnell)	3,592	23,044	Whyalla	42,306	7,303
Byron Bay			Woomera		29
Coff's Harbour (including Ballina)			Parcels Post, Adelaide	(a)	2,680
Grafton (including Yamba)			<i>Total South Australia</i>	<i>521,720</i>	<i>199,973</i>
Kingsford-Smith Airport	144,154	213,704	Western Australia—		
Newcastle (including Port Stephens)	182,417	45,517	Fremantle	549,049	144,899
Port Kembla	116,118	60,852	Albany	48,367	2,697
Richmond	69	5,012	Barrow Island		
Twofold Bay (including Eden)	5,417	(b)	Rroome	9,254	7,654
Parcels Post, Sydney	(a)	18,134	Bunbury	19,495	2,845
<i>Total New South Wales</i>	<i>1,420,990</i>	<i>1,810,086</i>	Busselton		
Victoria—			Cape Cuvier	4,127	668
Melbourne	1,311,983	1,293,020	Carnarvon		
Geelong	105,214	40,263	Derby	2,683	368
Melbourne Airport	38,048	116,996	Esperance	36,236	1,468
Portland	17,018	4,174	Exmouth (North West Cape)	241	743
Westernport	23,110	3,565	Geraldton	41,999	1,503
Parcels Post, Melbourne	(a)	14,584	Dampier (King Bay)	164,584	11 810
<i>Total Victoria</i>	<i>1,495,373</i>	<i>1,472,602</i>	Kwinana	8,978	32,264
Queensland—			Perth	1,080	325
Brisbane	589,955	268,583	Perth Airport	21,477	7,512
Bowen	10,275	1	Onslow		
Brisbane Airport	13,038	10,411	Port Walcott (including Point Samson)	32,999	5,461
Bundaberg	31,732	16	Port Hedland	192,884	4,180
Cairns (including Cairns Airport)	43,040	3,702	Useless Loop	1,070	
Cape Flattery	421		Wyndham	7,793	493
Gladstone	162,071	9,160	Yampi Sound (Cockatoo Island)	12,093	
Hay Point	73,951		Parcels Post, Perth	(a)	2,416
Innisfail	42,173	2	<i>Total Western Australia</i>	<i>1,154,359</i>	<i>227,305</i>
Mackay	100,086	4,243	Tasmania—		
Maryborough (including Uranagan)		107	Hobart (including Cambridge Airport and Hobart Alighting Area)	82,879	19,236
Rockhampton (including airport and Port Alma)	48,310	1,004	Burnie (including Wynyard Airport)	44,370	11,915
Thursday Island	1,190	319	Devonport (including Devonport Airport and Ulverstone)	12,063	4,321
Townsville (including airport)	189,327	10,821	Launceston (including Launceston Airport and Beauty Point)	46,494	9,573
Weipa	(a)	970	Port Latta	27,950	
Parcels Post, Brisbane	(a)	2,109	Port Stanley		
<i>Total Queensland</i>	<i>1,305,569</i>	<i>311,448</i>	Spring Bay	4,956	
South Australia—			Parcels Post	(b)	(b)
Port Adelaide (including Stenhouse Bay)	340,248	161,009	<i>Total Tasmania</i>	<i>218,712</i>	<i>45,045</i>
Adelaide Airport	16,240	7,660	Northern Territory—		
Adelaide City			Darwin (including Darwin Airport, Groote Eylandt and Gove)	95,698	49,590
Ardrossan	7,454		Australian Capital Territory—		
Cape Thevenard	11,408		Canberra	1,284	4,672
Edithburgh			Grand Total	6,213,704	4,120,727
Port Augusta					
Port Giles	3,172				
Port Lincoln	19,230	757			
Port Pirie (including Port German)	72,251	2,080			
Port Stanvac	113	18,100			

(a) Included with main port.

(b) Included with respective port.

Movement of bullion and specie

The following table shows the values of gold and silver bullion and specie, and of bronze specie, exported from and imported into Australia.

EXPORTS AND IMPORTS OF BULLION AND SPECIE: AUSTRALIA
(*\$'000 f.o.b.*)

	<i>Exports</i>			<i>Imports</i>		
	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Gold—Bullion(a)	18,199	17,017	24,477	3,620	3,967	5,443
Specie	46	2,350	113	66	107	155
<i>Total gold</i>	<i>18,245</i>	<i>19,367</i>	<i>24,590</i>	<i>3,686</i>	<i>4,074</i>	<i>5,598</i>
Silver—Bullion(a)	12,380	9,174	9,156	108	54	101
Specie	46	54	74	37	25	153
<i>Total silver</i>	<i>12,426</i>	<i>9,228</i>	<i>9,230</i>	<i>145</i>	<i>79</i>	<i>254</i>
Other (including bronze and cupro-nickel)—Specie	586	416	625	92	58	65
Total—						
Australian Produce	31,243	28,920	34,109	..	..	..
Re-exports	14	91	336	..	..	..
Grand total	31,257	29,011	34,445	3,923	4,211	5,917

(a) Includes matte.

The following table shows the exports and imports of bullion and specie to and from various countries.

EXPORTS AND IMPORTS OF BULLION AND SPECIE, BY COUNTRY OF CONSIGNMENT OR ORIGIN, 1972-73
(*\$'000 f.o.b.*)

<i>Country</i>	<i>Exports</i>			<i>Imports</i>		
	<i>Bullion</i>	<i>Specie</i>	<i>Total</i>	<i>Bullion</i>	<i>Specie</i>	<i>Total</i>
Fiji	16	12	28	4,414	..	4,414
Germany, Federal Republic of	..	..	..	..	2	2
Hong Kong	6,703	2	6,705	..	3	3
Japan	7,654	2	7,656	223	..	223
Malaysia	11	..	11	..	..	..
New Zealand	849	418	1,267	21	3	24
Papua New Guinea	8	269	277	844	..	844
Singapore	183	47	230	1	..	1
Solomon Islands	..	11	11	..	..	..
Switzerland	..	..	..	..	61	61
United Kingdom	18,041	16	18,057	8	39	47
United States of America	20	1	21	32	26	58
Other Countries	148	34	182	1	65	66
Australia re-imported	..	..	..	..	174	174
Total	33,633	812	34,445	5,544	373	5,917

Total import clearances, dutiable clearances, and net customs duties collected

The following table shows the value of total import clearances, total dutiable clearances, and the net customs duties collected, together with the ratio of total dutiable clearances to total clearances.

TOTAL IMPORT CLEARANCES, DUTIABLE CLEARANCES, AND NET CUSTOMS DUTIES

		1968-69	1969-70	1970-71	1971-72	1972-73
Total import clearances	\$'000	3,432,209	3,858,808	4,103,786	3,976,345	4,132,983
Total dutiable clearances	„	1,508,391	1,779,110	2,005,478	1,929,319	1,804,803
Total net customs duties collected	„	340,940	407,432	458,908	462,671	507,965
Ratio of dutiable clearances to total clearances	per cent	43.9	46.1	48.9	48.5	43.7
Ratio of duties collected to dutiable clearances	„	22.6	22.9	22.9	24.0	28.1

Overseas trade in calendar years

For the purpose of comparison with countries which record overseas trade in calendar years, the following table has been compiled to show estimates of Australian exports and imports on a calendar year basis.

**OVERSEAS TRADE IN CALENDAR YEARS, AUSTRALIA
(\$'000 f.o.b.)**

Year	Merchandise		Non-merchandise		Total	
	Exports	Imports	Exports	Imports	Exports	Imports
1969	3,615,710	3,573,713	155,469	52,800	3,771,179	3,626,513
1970	4,129,782	3,999,393	129,616	56,529	4,259,398	4,055,922
1971	4,471,998	4,085,975	126,825	53,149	4,598,823	4,139,124
1972	5,303,919	3,826,249	128,185	50,809	5,432,104	3,877,058
1973	6,590,153	4,786,732	147,121	53,017	6,737,272	4,839,749

Excise

Although excise goods have no immediate bearing on overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Department of Customs and Excise, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of customs and excise revenue are shown in the chapter Public Authorities Finance. The following table shows the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia.

**QUANTITY OF SPIRITS, BEER, TOBACCO, ETC. ON WHICH EXCISE DUTY
WAS PAID: AUSTRALIA**

Article	1971-72	1972-73	Article	1971-72	1972-73
	'000 litre	'000 litre		'000 litre	'000 litre
Beer	1,593,909	1,654,392	Petrol—		
	'000 l al	'000 l al	Aviation gasoline (by-law)(a)	56,402	48,979
Spirits—			Aviation gasoline—Other(a)	2,018	81
Brandy	3,245	3,762	Gasoline(b)	10,930,480	11,152,476
Gin	675	753	<i>Total petrol</i>	<i>10,988,900</i>	<i>11,201,536</i>
Whisky	994	1,071	Mineral turpentine	14	5
Rum	1,381	1,414	Aviation turbine kerosene(a)	753,331	779,691
Liqueurs	296	367	Other kerosene . . . . .	..	542
Vodka	462	560	Diesel fuel (as defined by by-law)	1,023,459	1,091,960
Flavoured spirituous liquors	174	206		doz. packs	doz. packs
Other	3	5		'000	'000
<i>Total spirits (potable)</i>	<i>7,229</i>	<i>8,138</i>	Playing cards	149	148
Spirits for—				60 papers	60 papers
Fortifying wine . . . . .	..	..		or tubes	or tubes
				'000	'000
Tobacco	'000 kg 2,954	'000 kg 2,647	Cigarette papers and tubes	62,628	58,374
Cigars	94	119		matches	matches
Cigarettes—machine-made	26,066	27,159		'000	'000
			Matches	33,488,640	36,084,520
				'000 litre	'000 litre
			Grapewine for commercial pur- poses(b)	109,013	(c)60,912
			Coal	'000 tonnes 45,358	'000 tonnes 47,257
			Canned fruit	'000 doz containers 6,976	'000 doz containers 7,226

(a) Includes supplies to Commonwealth Government on which excise was paid. During the years 1971-72 and 1972-73 refunds were made on 272,622,536 litres and 306,768,235 litres respectively. (b) Duty collected up to 7.12.72.

PRIVATE OVERSEAS INVESTMENT

Surveys of overseas investment have been conducted since 1947-48 to obtain particulars of certain types of private capital flows to and from Australia. The surveys, when supplemented by other information, provide statistics of overseas investment in companies in Australia and in Australian public authority securities repayable in Australian currency, as well as statistics of Australian investment in companies overseas and in foreign government securities. Particulars of investment income from most of those classes of investment are also obtained from the surveys.

Certain types of private overseas investment are not included in the statistics which follow. Investment in real estate (except when made through companies) and loans between Australian individuals and non-resident individuals are not covered. Nor are changes in short-term liabilities between exporters and importers in Australia and overseas covered, except in so far as they arise from exports and imports between branches or subsidiaries and their home offices or parent companies. In this case they are included in the figures of investment in branches or subsidiaries.

In the tables which classify investment in Australia according to country of origin, the investment is shown as an inflow from the country which is the immediate source of the capital. Income payable overseas is classified on a similar basis, i.e. it is classified to the country to which it is directly payable.

Remittances between Australia and overseas by Australian life insurance companies are regarded as capital transactions made to bring assets located in overseas countries into line with commitments in those countries, and are included as a flow of investment between Australia and overseas. Similar considerations apply to overseas life insurance companies with branches in Australia.

The following are explanatory notes relating to some of the terms used in the tables.

Branches. Offices in Australia of companies incorporated overseas or offices in separate overseas countries of companies incorporated in Australia, the value of whose net liabilities to head office exceeds \$A10,000 or whose annual net profit or loss exceeds \$A10,000. Australian branches of companies overseas include other Australian offices of companies overseas where a branch register is maintained in Australia but exclude companies in Australia which are incorporated overseas but which have no business operations in Australia other than an account with a bank in Australia. Overseas branches of companies in Australia exclude companies overseas which are incorporated in Australia but which have no business operations overseas other than an account with a bank overseas. However, the short-term assets represented by the bank accounts overseas are included as Australian portfolio investment overseas for those companies included in the surveys of overseas investment.

Companies. Incorporated and unincorporated businesses and other organisations. Excludes companies which have no business operations in a country other than an account with a bank in that country.

Direct investment. All investment in branches and subsidiaries by direct investors and other related companies except branch liabilities, for interest, goods and services, to related companies overseas other than head offices of the Australian branches.

Overseas. Countries other than Australia. Includes Papua New Guinea, Norfolk Island and other external territories of Australia. Overseas branches and subsidiaries of companies in Australia are also regarded as being resident overseas.

Portfolio investment and institutional loans. Investment in companies other than direct investment, i.e. investment other than investment by related companies in branches and subsidiaries.

Subsidiaries. An Australian subsidiary of a company overseas is a company in Australia, other than a branch, in which:

- (a) a single overseas resident (individual or company) or a group of related companies in the one overseas country holds 25 per cent or more of the equity, or, if this condition does not apply,
 - (b) residents of one overseas country combined hold 50 per cent or more of the equity,
- together with other companies in Australia in which the Australian subsidiary holds, directly or indirectly, more than 50 per cent of the equity.

An overseas subsidiary of a company in Australia is a company overseas other than a branch, in which a company in Australia holds 25 per cent or more of the equity. In principle, companies overseas in which the combined Australian shareholding is 50 per cent or more would also be included but it is not practicable to ascertain the total investment by Australian shareholders in individual companies overseas.

Undistributed profits of subsidiaries. Equity of direct investors in the net earnings of a company during the year, less tax payable on those earnings and less dividends declared during the year whether relating to earnings of the same year or not. Net earnings are in general based on income for taxation purposes. However, certain deductions allowable for taxation purposes (e.g. mining exploration expenditure, Export Market Development Allowance, Investment Allowance for Manufacturing Plant, previous year's losses, etc.) are not deducted in calculating net earnings. Undistributed profits of Australian subsidiaries also includes undistributed income accruing to the subsidiary from related companies in Australia.

Unremitted profits of branches. Net earnings (after tax) during the year, less remittances of earnings to the head office during the year, irrespective of the year to which the earnings relate. Net earnings of branches are in general similar to those for subsidiaries. Also included is undistributed income accruing to the branch of other companies related to the branch.

The annual bulletin *Insurance and Other Private Finance* (5.15) and the *Annual Bulletin of Overseas Investment* (5.20) contain additional figures relating to overseas investment, including a longer range of years covered, and also a more detailed description of the figures.

Private overseas investment in companies in Australia and investment income payable overseas by companies in Australia

The inflow of private overseas investment in Australia in recent years is shown in the next three tables.

**INFLOW OF OVERSEAS INVESTMENT IN COMPANIES IN AUSTRALIA
BY CATEGORY OF INVESTMENT
(\$ million)**

Year	<i>Direct investment</i>				<i>Portfolio investment and institutional loans</i>		<i>Total</i>
	<i>Australian branches</i>		<i>Australian subsidiaries</i>		<i>Total direct</i>	<i>loans</i>	
	<i>Un-remitted profits (net)</i>	<i>Other direct investment</i>	<i>Un-distributed profits (net)</i>	<i>Other direct investment</i>			
1968-69	14	148	239	200	601	405	1,006
1969-70	5	156	226	354	740	274	1,014
1970-71	26	148	248	506	928	655	1,584
1971-72	41	124	207	503	874	588	1,463
1972-73	39	35	254	- 66	262	116	379
1973-74p	- 8	3	420	135	550	- 109	441

Minus sign (-) denotes outflow.

**INFLOW OF OVERSEAS INVESTMENT IN COMPANIES IN AUSTRALIA,
BY COUNTRY AND BROAD CATEGORY OF INVESTMENT
(\$ million)**

Year	<i>United Kingdom</i>	<i>U.S.A.</i>	<i>Canada</i>	<i>Japan</i>	<i>E.E.C. (a)</i>	<i>Other countries</i>	<i>Total</i>
UNDISTRIBUTED INCOME							
1968-69	140	97	12	3	- 2	2	252
1969-70	147	73	11	- 2	- 8	10	231
1970-71	148	104	14	- 3	4	7	274
1971-72	109	128	20	- 1	- 5	- 4	248
1972-73	148	144	7	7	- 3	- 9	293
1973-74p	182	201	24	8	- 10	7	412
OTHER DIRECT INVESTMENT							
1968-69	78	189	5	15	31	30	349
1969-70	92	296	23	21	41	37	510
1970-71	154	235	23	65	50	128	654
1971-72	144	229	12	67	39	135	626
1972-73	21	- 51	1	- 22	- 12	32	- 31
1973-74p	64	39	13	28	26	- 31	137
PORTFOLIO INVESTMENT AND INSTITUTIONAL LOANS							
1968-69	263	38	5	100			405
1969-70	111	- 3	- 5	171			274
1970-71	254	141	18	242			655
1971-72	153	192	6	237			588
1972-73	- 103	- 32	- 9	63	75	121	116
1973-74p	- 149	- 81	- 12	25	77	31	- 109
TOTAL							
1968-69	482	324	22	179			1,006
1969-70	350	365	29	270			1,014
1970-71	558	479	55	492			1,584
1971-72	406	549	40	467			1,463
1972-73	66	61	..	48	60	144	379
1973-74p	98	159	24	61	93	6	441

(a) Includes France, Federal Republic of Germany, Italy, Netherlands, Belgium, Luxembourg, Denmark and Eire from 1972-73 onwards.

Minus sign (-) denotes outflow.

**INFLOW OF DIRECT OVERSEAS INVESTMENT IN COMPANIES
IN AUSTRALIA, BY INDUSTRY**

(\$ million)

<i>Year</i>	<i>Primary production</i>	<i>Manu- facturing</i>	<i>Other industries</i>	<i>Total</i>
1968-69	232	199	170	601
1969-70	210	232	299	740
1970-71	300	248	381	928
1971-72	356	190	329	874
1972-73	61	31	171	262
1973-74p	58	269	223	550

The next three tables show investment income payable overseas by companies in Australia.

**INVESTMENT INCOME PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA
BY CATEGORY OF INCOME**

(\$ million)

<i>Direct investment income payable overseas by companies in Australia</i>						
<i>Australian subsidiaries</i>						
<i>Year</i>	<i>Australian branches</i>		<i>Distributed earnings</i>			<i>Total direct</i>
	<i>Unremitted profits (net)</i>	<i>Remitted profits and interest</i>	<i>Undistributed profits (net)</i>	<i>Dividends payable</i>	<i>Interest payable</i>	
1968-69	34	68	247	106	34	489
1969-70	41	76	244	141	51	553
1970-71	52	94	247	131	63	588
1971-72	41	96	207	134	88	566
1972-73	39	135	254	202	93	723
1973-74p	- 8	133	420	203	79	828

<i>Income payable overseas on portfolio investment and institutional loans</i>				
				<i>Grand total</i>
	<i>Dividends</i>	<i>Interest</i>	<i>Total</i>	
1968-69	50	32	82	571
1969-70	55	36	91	644
1970-71	57	45	102	690
1971-72	63	69	132	698
1972-73	69	82	151	874
1973-74p	70	70	140	968

**INVESTMENT INCOME PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA
BY COUNTRY AND BROAD CATEGORY OF INCOME**

(\$ million)

<i>Year</i>	<i>United Kingdom</i>	<i>U.S.A.</i>	<i>Canada</i>	<i>Japan</i>	<i>E.E.C. (a)</i>	<i>Other countries</i>	<i>Total</i>
UNDISTRIBUTED INCOME							
1968-69	140	97	12	3	- 2	2	252
1969-70	147	73	11	- 2	8	10	231
1970-71	148	104	14	- 3	- 4	7	274
1971-72	109	128	20	- 1	- 5	- 4	248
1972-73	148	144	7	7	- 3	- 9	293
1973-74p	182	201	24	8	-10	7	412
DISTRIBUTED INCOME ON DIRECT INVESTMENT							
1968-69	87	95	6	(b)	(b)	20	208
1969-70	105	134	7	4	6	12	269
1970-71	113	138	7	5	7	18	289
1971-72	105	165	6	11	7	24	318
1972-73	140	235	17	10	7	20	430
1973-74p	141	229	6	11	5	22	415
INCOME PAYABLE ON PORTFOLIO INVESTMENT AND INSTITUTIONAL LOANS							
1968-69	37	24	1	19			82
1969-70	42	25	1	23			91
1970-71	44	26	1	32			103
1971-72	52	34	2	44			132
1972-73	62	33	3	2	16	35	151
1973-74p	53	25	2	3	20	37	140
TOTAL							
1968-69	265	216	19	42			542
1969-70	294	232	19	46			590
1970-71	306	469	23	68			666
1971-72	265	327	28	78			698
1972-73	350	412	27	18	21	46	874
1973-74p	377	455	32	23	15	66	968

(a) Includes France, Federal Republic of Germany, Italy, Netherlands, Belgium, Luxembourg, Denmark and Eire from 1972-73 onwards. (b) Not available for publication.

Minus sign (-) denotes outflow.

**DIRECT INVESTMENT INCOME PAYABLE OVERSEAS BY COMPANIES
IN AUSTRALIA, BY INDUSTRY**

(\$ million)

<i>Year</i>	<i>Primary production</i>	<i>Manu- facturing</i>	<i>Other industries</i>	<i>Total</i>
1968-69	59	230	172	461
1969-70	63	255	182	499
1970-71	158	240	165	563
1971-72	125	242	199	566
1972-73	182	275	265	723
1973-74p	272	340	216	828

Australian investment in companies overseas and investment income receivable from companies overseas

The outflow of Australian investment in companies in recent years and a classification by country in which the capital was invested are shown in the following two tables.

**OUTFLOW OF AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS
BY CATEGORY OF INVESTMENT**

(\$ million)

<i>Year</i>	<i>Direct investment</i>				<i>Total</i>	<i>Portfolio investment and institutional loans(a)</i>	<i>Grand total</i>
	<i>Overseas branches</i>		<i>Overseas subsidiaries</i>				
	<i>Unre- mitted profits (net)</i>	<i>Other direct investment</i>	<i>Undis- tributed profits (net)</i>	<i>Other direct investment</i>			
1968-69	- 9	11	21	37	59	3	62
1969-70	- 6	4	19	108	125	6	131
1970-71	- 8	12	22	39	65	12	77
1971-72	- 9	26	33	71	119	..	119
1972-73	- 6	19	81	21	115	7	123
1973-74p	-19	59	97	24	161	21	182

(a) Excludes portfolio investment in Papua New Guinea other than some long-term trade credit and short-term assets. Minus sign (-) denotes inflow.

**OUTFLOW OF AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS
BY COUNTRY**

(\$ million)

<i>Year</i>	<i>United Kingdom</i>	<i>New Zealand</i>	<i>U.S.A. and Canada</i>	<i>Papua New Guinea(a)</i>	<i>Other countries</i>	<i>Total</i>
1968-69	17	14	1	25	5	62
1969-70	35	10	5	72	10	132
1970-71	- 1	22	9	37	15	77
1971-72	- 6	26	10	60	31	119
1972-73	6	23	3	(b)	91(c)	123
1973-74p	39	31	35	42	35	182

(a) Excludes portfolio investment other than some long-term trade credit and short-term assets. (b) Not available for publication. (c) Includes Papua New Guinea.

Minus sign (-) denotes inflow.

The next two tables show income from direct investment receivable by Australian companies from companies overseas, and the countries from which it is receivable.

DIRECT INVESTMENT INCOME RECEIVABLE FROM OVERSEAS BY COMPANIES IN AUSTRALIA, BY TYPE OF COMPANY AND CATEGORY OF INCOME(a)
(\$ million)

Year	Overseas branches		Overseas subsidiaries		Total
	Unremitted profits (net)	Remitted profits and interest	Undistributed profits (net)	Dividends and interest receivable	
1968-69	- 9	5	21	24	41
1969-70	- 6	5	19	26	44
1970-71	- 8	6	22	27	47
1971-72	- 9	4	33	34	61
1972-73	- 6	14	81	36	124
1973-74p	-19	24	97	64	166

(a) Details are not available of income receivable in Australia on either portfolio investment and institutional loans or on Australian holdings of foreign government securities.

Minus sign (—) denotes inflow.

DIRECT INVESTMENT INCOME RECEIVABLE FROM OVERSEAS BY COMPANIES IN AUSTRALIA, BY COUNTRY(a)
(\$ million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Papua New Guinea(a)	Other countries	Total
1968-69	2	17	2	4	17	41
1969-70	4	13	1	9	17	44
1970-71	6	14	(b)	7	(c)20	47
1971-72	4	11	2	23	21	61
1972-73	17	20	(b)	(b)	(d)87	124
1973-74p	21	28	1	(b)	(e)116	166

(a) Details are not available of income receivable in Australia on either portfolio investment and institutional loans or on Australian holdings of foreign government securities. (b) Not available for publication—included in 'Other countries'. (c) Includes U.S.A. and Canada. (d) Includes U.S.A. Canada and Papua New Guinea. (e) Includes Papua New Guinea.

BALANCE OF PAYMENTS

Estimates of a country's balance of payments are prepared for the purpose of providing a systematic record in money terms of the economic transactions which take place over a period between that country and all other countries. Such records are essential to the examination of influences which external factors have on the domestic economy. The Australian economy is subject to fairly large fluctuations in export income, and it is also affected in important respects by variations in the level of foreign investment and the demand for imports. Consequently, these estimates have always assumed particular importance in this country.

Official estimates of Australia's balance of payments covering the period 1928-29 to 1930-31 were included in the Appendix to Year Book No. 24, 1931. Except for the war years (1939 to 1945), estimates have since been published annually. Detailed estimates are provided yearly in the mimeographed publication *Balance of Payments* (8.1), which also provides a description of the various items included. A summarised statement of the principal current account items and capital movements is prepared and issued on a quarterly basis in the *Balance of Payments—Quarterly Summary* (8.2).

In the form of presentation adopted for the Australian balance of payments estimates a basic distinction is made between 'current account' and 'capital account' transactions. Current account transactions may be defined as those involving changes in the ownership of goods or the rendering of services between residents of Australia and the rest of the world and include such items as exports, imports, shipping freights, dividends, profits and interest, travel, and government expenditure. The current account also includes the value of transfers in the form of gifts in cash or kind made or received by residents of Australia, both private and government, to or from the rest of the world. Capital account transactions may be defined as those involving claims to money and titles of investment between residents of Australia and those of another country and include government loan-raising operations overseas, investment by overseas residents in Australian companies, the investment of Australian residents in companies overseas, and changes in the level of Australia's foreign reserves.

By definition, the balance of payments on current account and the balance of payments on capital account during a given period must exactly offset one another. Errors and omissions, however, occur in the estimation of the amounts involved in various items in both the current and capital accounts, and, in addition, there are differences in timing between the statistical recording of trade and invisible transactions and the corresponding foreign exchange transactions. It is therefore necessary to introduce into the estimates a 'balancing item' which allows the identity between the current and capital account balances to be preserved. The 'balancing item' is included in the capital account, but, as mentioned above, it includes discrepancies in the current account and does not, as is frequently supposed, include only errors, omissions and timing differences related to capital transactions.

Details of the estimates are assembled from a variety of sources of which the following are the more important: (i) statistics of exports and imports obtained from Australian trade statistics; (ii) details of the import valuation adjustment obtained from a sample of the invoices submitted to the Department of Customs and Excise in respect of imports into Australia; (iii) information on particular invisible current account items and capital movements obtained by regular inquiry from private organisations and government departments; (iv) details of receipts and payments of foreign exchange provided by the banking system; (v) information on profits remitted, undistributed income and private investment in companies provided by statistics of overseas investment collected by this Bureau; (vi) information on freight on imports and other items concerned with overseas transportation obtained from a sample of the invoices submitted to the Department of Customs and Excise in respect of imports into Australia and from a survey conducted by this Bureau of overseas shipping and airline operations; and (vii) information supplied by the Reserve Bank of Australia on gold and net foreign assets of official and banking institutions.

Current account

The balance of payments on current account is arranged to show a series of items for each of which there is a credit and/or a debit entry. In most cases the credit entries represent transactions in goods and services, property income, and transfers, which result in receipts of foreign exchange, while the debit entries represent similar transactions which result in payments of foreign exchange. Some entries which do not entail movements of foreign exchange are also included, the principal examples being those for undistributed income and transactions, mainly in goods, in which the payments due are subsequently capitalised. These amounts are treated as credits or debits in the relevant sections of the current account, and as corresponding outflows or inflows in non-monetary items in the capital account. Transfers in kind provide a further example of transactions which do not require a movement of foreign exchange. The values of transfers received or provided in kind are shown as credits or debits respectively.

The largest items shown in the current account are exports and imports, and the difference between them represents the balance of trade. This is usually the most variable relationship in the balance of payments and is, therefore, a most important one. *For balance of payment purposes, certain adjustments are made to the recorded trade statistics.* Briefly, these adjustments are made to exclude those transactions for which there is no change of ownership between residents and non-residents of Australia and to include certain transactions for which there has been a change of ownership but for which customs entries are not required. In addition, a valuation adjustment is made to the recorded import statistics in order to remove the overstatement which results from the basis of valuation for customs duty. A full description of the adjustments was provided in the Appendix to the publication *Balance of Payments, 1968-69*. A full evaluation of the overall position on current account, however, occurs only after the invisible items have been taken into account. In value terms the most important of these are the transportation items. Entries appear on both the debit and credit sides, the principal component on the debit side being freight payable overseas on imports into Australia. The principal component on the credit side is expenditure by overseas carriers, which represents mainly overseas ships' expenditure for stevedoring, port charges, etc., incurred in loading and discharging

goods at Australian ports, and stores purchased in Australia. The items next in importance are those concerning income from property. Debit entries under this heading include dividends, profits, interest and royalties payable overseas, while the credit entries include similar details of amounts receivable by Australian residents. These items include undistributed income in respect of which, as mentioned above, no monetary movements occur. The remaining items are smaller than those mentioned above, and include travel, government transactions, transfers (including foreign aid made available by the Australian Government), and, on the credit side, the net value of Australian gold production.

Capital account

In the capital account, transactions are recorded on a net basis; that is, according to the net effect of all debit and credit entries relating to each item. Thus entries on the credit side represent a net increase in non-residents' assets in Australia or a net decrease in Australian assets overseas, while debit entries represent a net decrease in non-residents' assets in Australia or a net increase in Australian assets overseas.

Capital account transactions are grouped according to the sector of the Australian party to the transactions. The government sector, therefore, includes all capital transactions of central, State, local and semi-government authorities with the exception of transactions of monetary institutions (which are included in the monetary sector), while the private sector covers transactions of all resident individuals and private institutions (again excepting monetary institutions). The monetary sector covers all banking institutions, including government-owned banks. Transactions of the monetary sector are further sub-divided into those of official and 'other' monetary institutions. Transactions of official institutions include changes in Australia's official reserve assets (consisting of gold, foreign exchange, the I.M.F. gold tranche and special drawing rights in the I.M.F.) and transactions between the Reserve Bank of Australia and foreign central monetary authorities and the I.M.F. Also included is an item, *18.4 Allocation of Special Drawing Rights*. This the counterpart to the change in official reserve assets due to the allocation to Australia of S.D.R.s by the I.M.F. Such an entry is necessary in this case because without it there would be no corresponding credit to the increase in assets (debit) and the allocation would be reflected in an offsetting movement in the balancing item. 'Other' monetary institutions includes all other transactions of Australian monetary institutions.

In the government sector the most important items include transactions by non-residents in government securities domiciled overseas and in Australia and transactions involving changes in Australia's assets with and liabilities to international development institutions such as the International Bank for Reconstruction and Development and the Asian Development Bank. Other government transactions are largely a reflection of the net effect on the balance of payments of leads and lags between payments made overseas for items of equipment for the defence services or government airlines and the delivery of the equipment. In periods where payments exceed the value of deliveries a net debit results; in periods where the value of deliveries exceeds payments a net credit is recorded.

In the private sector the most important items are overseas investment in Australian companies, Australian investment overseas, and the transactions of marketing authorities. The figures for marketing authorities represent changes in the estimated value of commodity stocks held overseas by, or in amounts owed by overseas debtors to, the principal Australian marketing authorities.

In the monetary sector the most important item is that which shows the net changes in Australia's official reserve assets.

The balancing item includes errors and omissions and timing differences, referred to on page 342.

Tables—Balance of payments

The following tables show particulars of:

- (i) the balance of payments; and
- (ii) the balance of payments by regions.

BALANCE OF PAYMENTS: AUSTRALIA
(\$ million)

	1970-71		1971-72		1972-73	
	Credit	Debit	Credit	Debit	Credit	Debit
CURRENT ACCOUNT						
Goods—						
1 Exports f.o.b.(a)	4,217	..	4,726	..	5,991	..
2 Imports f.o.b.(a) . . . .	..	3,790	..	3,792	..	3,807
<i>Balance of trade</i>	427	..	934	..	2,184	..
Invisibles—						
3 Gold production	15	..	13	..	15	..
4 Transportation --						
4.1 Freight on imports(b) . . . .	..	409	..	409	..	426
4.2 Expenditure of overseas carriers	305	..	332	..	393	..
4.3 Other transportation	170	423	166	439	182	458
5 Travel	136	199	139	264	132	312
6 Government—						
6.1 Australian government—						
6.11 Defence expenditure . . . .	..	73	..	63	..	49
6.12 Other expenditure . . . .	..	54	..	61	..	73
6.13 Services to non-residents	26	..	27	..	26	..
6.2 Foreign governments' expenditure	56	..	63	..	64	..
7 Miscellaneous—						
7.1 Business expenses	87	106	102	132	89	156
7.2 Other	48	64	58	78	45	67
8 Property income—						
8.1 Direct investment—						
8.11 Undistributed	14	274	23	248	75	293
8.12 Distributed	33	289	38	318	50	430
8.2 Interest on government loans . . . . .	..	88	..	88	..	82
8.3 Royalties and copyrights	6	64	4	56	4	75
8.4 Other	112	102	163	132	252	151
9 Government transfers—						
9.1 Papua New Guinea . . . .	..	123	..	132	..	158
9.2 Other foreign aid . . . .	..	62	..	73	..	94
10 Private transfers—						
10.1 Migrants' funds	130	49	153	69	165	93
10.2 Other	51	85	73	103	71	118
Balance on current account . . . .	..	849	..	375	712	..

For footnotes see next page.

BALANCE OF PAYMENTS: AUSTRALIA—*continued*
(\$ million)

	1970-71		1971-72		1972-73	
	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>	<i>Credit</i>	<i>Debit</i>
CAPITAL ACCOUNT (NET)						
Government—						
11 Government securities—						
11.1 Domiciled overseas . . . . .	..	47	..	49	..	66
11.2 Domiciled in Australia . . . . .	..	2	3	..	33	..
12 International development institutions(c) . . . . .	..	7	..	7	..	9
13 Other government transactions . . . . .	..	8	..	8	..	22
Private—						
14 Overseas investment in Australian companies—						
14.1 Direct investment—						
14.11 Undistributed income	274	..	248	..	293	..
14.12 Other	654	..	626	..	..	31
14.2 Portfolio investment and institutional loans	655	..	588	..	116	..
15 Australian investment overseas—						
15.1 Direct investment—						
15.11 Undistributed income . . . . .	..	14	..	23	..	75
15.12 Other . . . . .	..	51	..	96	..	41
15.2 Portfolio investment . . . . .	..	29	..	24	..	29
16 Other private investment	12	..	4	..	17	..
17 Marketing authorities . . . . .	..	41	..	45	34	..
Monetary—						
18 Official monetary institutions—						
18.1 Changes in liabilities—						
18.11 Use of I.M.F. credit . . . . .	..	..	..	..	..	..
18.12 Other	7	..	5	..	10	..
18.2 Changes in official reserve assets . . . . .	..	742	..	1,544	..	995
18.3 Other transactions	3	..	3	..	..	..
18.4 Allocation of Special Drawing Rights	64	..	63	..	..	..
19 Other monetary institutions—						
19.1 Changes in liabilities	29	..	47	..	95	..
19.2 Changes in assets—						
19.21 Advances to non-residents . . . . .	..	1	..	3	..	6
19.22 Other foreign assets	71	..	31	..	3	..
Balancing item	21	..	556	..	..	41
Balance on capital account	849	..	375	..	..	712

(a) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect timing, coverage and valuation. (b) Freight payable overseas only. Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at \$462 million in 1970-71, \$465 million in 1971-72 and \$491 million in 1972-73. (c) Subscription transactions only.

BALANCE OF PAYMENTS BY REGIONS: AUSTRALIA
(\$ million)

	1970-71	1971-72	1972-73
CURRENT ACCOUNT(a)			
Exports f.o.b.(b)—			
United States of America	513	612	712
Canada	105	138	163
United Kingdom	485	438	563
European Economic Community	395	468	653
Japan	1,182	1,352	1,918
New Zealand	222	262	311
Papua New Guinea	144	140	121
Sino-Soviet Area	168	171	273
Other countries	1,005	1,145	1,277
<i>Total exports</i>	<i>4,217</i>	<i>4,726</i>	<i>5,991</i>
Imports f.o.b.(b)—			
United States of America	905	889	805
Canada	153	124	122
United Kingdom	800	762	682
European Economic Community	516	508	533
Japan	557	606	688
New Zealand	90	107	122
Papua New Guinea	22	22	23
Sino-Soviet Area	53	62	74
Other countries	695	712	758
<i>Total imports</i>	<i>3,790</i>	<i>3,792</i>	<i>3,807</i>
Invisibles (net)—			
United States of America	— 290	— 382	— 466
Canada	— 31	— 24	— 29
United Kingdom	— 496	— 456	— 480
European Economic Community	— 125	— 107	— 145
Japan	9	5	— 3
New Zealand . . . . .	..	— 3	13
Papua New Guinea	— 104	— 90	— 75
Sino-Soviet Area . . . . .	..	— 4	— 6
Other countries	— 229	— 243	— 275
International agencies	— 25	— 20	— 21
Gold production	15	13	15
<i>Total invisibles (net)</i>	<i>— 1,276</i>	<i>— 1,309</i>	<i>— 1,472</i>
Balance on current account—			
United States of America	— 683	— 659	— 558
Canada	— 79	— 10	13
United Kingdom	— 812	— 779	— 599
European Economic Community	— 246	— 147	— 26
Japan	— 634	— 751	1,227
New Zealand	132	152	202
Papua New Guinea	18	29	23
Sino-Soviet Area	115	105	193
Other countries	82	190	245
International agencies	— 25	— 20	— 21
Gold production	15	13	15
Total balance on current account	— 849	— 375	712

For footnotes see next page.

BALANCE OF PAYMENTS BY REGIONS: AUSTRALIA—*continued*
(\$ million)

	1970-71	1971-72	1972-73
CAPITAL ACCOUNT (NET)(a)			
Non-monetary sector—			
Government capital movements—			
United States of America	2	15	- 69
Canada	- 9	- 1	- 1
United Kingdom	- 30	- 67	- 51
European Economic Community	- 5	24	- 10
Japan	..	..	28
New Zealand	..	- 1	1
Papua New Guinea	- 2	- 12	..
Sino-Soviet Area	..	..	..
International development institutions	- 25	5	- 20
Other countries and international institutions	5	- 23	58
<i>Total government capital movements</i>	- 63	- 60	- 64
Overseas investment in Australian companies—			
United States of America	479	549	61
Canada	55	40	..
United Kingdom	558	406	66
European Economic Community	n.a.	n.a.	60
Japan	n.a.	n.a.	48
New Zealand	n.a.	n.a.	n.a.
Papua New Guinea	n.a.	n.a.	n.a.
Sino-Soviet Area	n.a.	n.a.	n.a.
Other countries(c)	492	468	144
<i>Total overseas investment in Australian companies</i>	1,384	1,463	379
Other capital movements—			
United States of America	- 4	- 5	..
Canada	3	- 6	4
United Kingdom	3	30	- 6
European Economic Community	..	- 1	- 9
Japan	1	..	..
New Zealand	- 17	- 24	- 21
Papua New Guinea	- 54	- 84	- 69
Sino-Soviet Area	56	14	- 12
Other countries(c)	- 109	- 109	20
<i>Total other private capital movements</i>	- 123	- 185	- 94
Total non-monetary sector transactions—			
United States of America	476	559	- 8
Canada	49	33	3
United Kingdom	531	369	10
European Economic Community	n.a.	n.a.	41
Japan	n.a.	n.a.	20
New Zealand	n.a.	n.a.	n.a.
Papua New Guinea	n.a.	n.a.	n.a.
Sino-Soviet Area	n.a.	n.a.	n.a.
International development institutions	n.a.	n.a.	n.a.
Other countries and international institutions(c)	341	257	157
<i>Total non-monetary sector transactions</i>	1,398	1,218	221
Monetary sector transactions—			
Official institutions(d)	- 668	- 1,474	- 985
Other(d)	99	76	93
Balancing item(d)	21	5.6	- 41
Total balance on capital account(d)	849	375	- 712

(a) For current account balances minus sign (—) denotes deficit; for capital account items minus sign (—) denotes an increase in overseas assets or a decrease in liabilities to overseas. (b) The amounts shown represent recorded trade figures adjusted for balance of payments purposes. Adjustments affect timing, coverage and valuation. (c) Including Japan and European Economic Community. (d) No regional split is available for these items.

International reserves

The following table shows the total gold and net foreign assets of official and banking institutions as at 30 June for recent years.

**GOLD AND NET FOREIGN ASSETS
OFFICIAL AND BANKING INSTITUTIONS**

(Source: Reserve Bank of Australia)

(\$ million)

	30 June		
	1971	1972	1973
Official reserve assets—			
Gold	227	233	220
Special Drawing Rights	146	209	200
I.M.F. gold tranche	186	149	143
Foreign exchange—			
United States dollars	696	1,345	2,028
Sterling	947	1,657	1,484
Others	77	171	255
<i>Total</i>	<i>2,280</i>	<i>3,764</i>	<i>4,331</i>
Other foreign assets (net)	29	— 3	— 6
Total	2,309	3,761	4,325

**INDEXES OF VALUES OF EXPORTS AND IMPORTS
AT CONSTANT PRICES**

The following tables show annual indexes of the values of Australian exports and imports of merchandise at constant (average 1966–67) prices. Further information concerning the sources and methods used in compiling the series is contained in the bulletin *Exports and Imports of Merchandise at Constant Prices* (8.21) published on 10 October 1968. Quarterly figures in original and seasonally adjusted terms are published regularly in the bulletin *Exports and Imports of Merchandise at Constant Prices* (8.22).

Nature of the indexes

Indexes of this type are designed to provide, in convenient summary form, measures of change in the quantum of exports and imports. They are sometimes referred to as measures of change in the volume of exports and imports, though strictly speaking they measure change in the value of exports and imports after the direct effects of price changes have been eliminated. Measures of this type are, of necessity, subject to approximations and assumptions, and they should not be interpreted in any precise quantitative sense.

In concept, the indexes may be thought of as being derived by expressing the value of each export or import item as the product of a price and a quantity, and by then substituting for each actual current price the corresponding price in the chosen base year. The total value of exports or imports in the current year, expressed at the prices of the base year, is then obtained by summing and is converted to an index number by dividing by the total value of exports or imports in the base year. Indexes so derived may be described as 'fixed-weight' indexes, the weights of individual items in the composite measure being determined by their relative prices in the base year. It follows that the choice of a particular base year will normally affect the trend of such indexes (so long as there are variations in the rate of change in quantity of individual items, and variations in relative prices of such items from one year to the next).

The indexes are compiled on the basis of recorded statistics of exports and imports of merchandise. They should therefore be interpreted in conjunction with the statistics of overseas trade published by the Australian Bureau of Statistics. In particular, it should be noted that in overseas trade statistics (and in the index series derived from them) all values are determined on a 'free on board (f.o.b.) port of shipment' basis so that charges such as the cost of freight and insurance incurred after

the goods have been exported from the port of shipment are excluded. It should also be noted that the indexes published below exclude from their scope non-merchandise trade as currently defined (i.e. Sections 9B of the new commodity classifications which contain commodities such as gold, legal tender, decorations, trophies, samples, passengers' personal effects, military equipment and stores for Australian forces abroad).

EXPORTS OF MERCHANDISE
Indexes of Values at Average 1966-67 Prices

(Base: Year 1966-67 = 100)

	<i>Food and live animals</i>			<i>Total</i>	<i>Wool and sheepskins</i>	<i>Metal-liferous ores and metal scrap</i>	<i>Metal manufactures, machinery, transport equipment</i>	<i>Other exports</i>	<i>All exports of merchandise</i>
	<i>Meat and meat preparations</i>	<i>Cereal grains and cereal preparations</i>	<i>Other (dairy produce, fruit, sugar, etc.)</i>						
Percentage of total value of exports in 1966-67(a)	9.5	15.8	12.5	37.8	29.7	5.6	14.2	12.7	100.0
1966-67	100	100	100	100	100	100	100	100	100
1967-68	100	94	99	97	102	147	100	121	105
1968-69	98	80	102	92	107	211	116	147	114
1969-70	132	106	100	111	115	302	151	174	136
1970-71	135	146	109	131	105	385	156	189	148
1971-72	167	150	111	141	113	392	186	217	163
1972-73	214	95	126	135	108	474	226	237	172

IMPORTS OF MERCHANDISE
Indexes of Values at Average 1966-67 Prices

(Base: Year 1966-67 = 100)

	<i>Food, beverages, and tobacco</i>	<i>Fuels</i>	<i>Basic materials</i>	<i>Chemicals (including plastics)</i>	<i>Textiles, fabrics, etc.</i>	<i>Metal manufactures, machinery, transport equipment</i>	<i>Other imports</i>	<i>All imports of merchandise</i>
1966-67	100	100	100	100	100	100	100	100
1967-68	99	100	107	109	107	111	111	109
1968-69	110	105	106	123	114	116	121	116
1969-70	116	111	112	132	122	127	137	126
1970-71	120	81	108	145	127	133	152	130
1971-72	124	71	104	139	133	113	153	121
1972-73	127	64	125	150	143	115	164	127

(a) These percentages may be used in analysing the contribution of each group to movements in the total index.

CHAPTER 12

TRANSPORT AND COMMUNICATION

The statistics in this chapter relate in the main to the year 1972-73, with comparisons restricted to a few recent years. More detailed figures and particulars for earlier years are included in the annual bulletins, *Transport and Communication* (14.11), *Public Authority Finance—Authorities of the Australian Government* (5.12), and in the annual mimeographed statement *Motor Vehicle Registrations* (14.1). Current information on subjects dealt with in this chapter appears in the *Quarterly Summary of Australian Statistics* (1.3), the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5), *Overseas Shipping Cargo* (quarterly) (14.10), *Motor Vehicle Registrations* (quarterly) (14.2), two preliminary monthly statements *Registration of New Motor Vehicles* (14.6), (14.8), two quarterly bulletins *Road Traffic Accidents involving Casualties* (14.9), (14.14), *Road Accident Fatalities* (monthly) (14.13).

Information additional to that contained in Bureau publications is available in the annual reports and other statements of the Department of Transport, the various harbour boards and trusts, the several Government railway authorities, the Department of Civil Aviation, the Postmaster-General's Department, the Overseas Telecommunications Commission, the Australian Broadcasting Control Board, and the Australian Broadcasting Commission.

THE AUSTRALIAN TRANSPORT ADVISORY COUNCIL

In April 1946, the State and Federal Governments agreed to establish a co-ordinating and advisory committee at Ministerial level to review annually the various laws and regulations deemed necessary to safeguard the interests of the State Governments and road users generally and to consider matters of transport policy.

The Australian Transport Advisory Council (A.T.A.C.) thus established is comprised of the Australian Minister for Transport as Chairman, the Minister for the Capital Territory and Minister for the Northern Territory and each State Minister for Transport.

The Council primarily considers policy matters relating to transport operations, co-ordination and development. Its functions are: to initiate discussion and report to the respective Governments as necessary on any matter raised by the Council, or any State or Australian Government Authority; generally to exercise its purely advisory functions, and to report as necessary to the respective Governments concerned on any matter which will tend to promote a better co-ordination of transport development, while at the same time encouraging modernisation and innovation to meet changing needs; and to assist in maintaining continuous and comprehensive research in relation to transport development in Australia and abroad; such research to be carried out for the benefit of Australian Transport authorities and agencies.

The regulation of and the executive responsibility for transport is shared between the Australian and State Governments. A.T.A.C. is the meeting ground at a Ministerial level and provides an effective means for inviting discussion and reaching uniformity of approach towards transport administrative procedures and policy. It also provides a means for reviewing and discussing national solutions of transport problems and the rectification of transport deficiencies generally. The Council has been active in: the establishment of special committees and conferences to examine and report on specific problems such as road safety, motor vehicle standards and safety features, motor vehicle emissions, transport economic research, highway planning, level crossing accidents, blood tests for road users, driver improvement, pedestrian behaviour, etc.; the exchange of views and formulation of common policies on a wide range of transport matters; effecting at ministerial level Federal-State and interstate co-operation on such matters as construction and operation of interstate railway links, collecting of fines and fees interstate, policing of regulations, etc.; and the publication of comprehensive surveys of Australian transport.

Typical of matters A.T.A.C. has examined from time to time are the following: the effect of standardisation of railway gauges on other modes of transport; advanced national policies of road development and research; transport in relation to interstate tourist traffic; standardisation of traffic signs and road signs; standard and improved statistical data relating to transport of passengers and goods; uniform road traffic laws and standards for motor vehicle design and equipment; control of emissions from motor vehicles; pipelines as a transport medium; and containerisation and the need for uniform legislation, particularly in relation to maximum weights of road vehicles.

Details of the advisory committees established at February 1973 by the Transport Advisory Council are given in Year Book No. 59, pages 330-1.

SHIPPING

Control of shipping

Australian Government navigation and shipping legislation

For an outline of the development and scope of Australian Government legislation, see Year Book No. 55, pages 366-7.

Australian Government Acts connected with shipping are: the *Navigation Act* 1912-1973, the *Sea Carriage of Goods Act* 1924-1973, the *Seamen's Compensation Act* 1911-1973, the *Seamen's War Pensions and Allowances Act* 1940-1973, the *Pollution of the Sea by Oil Act* 1960-1973, the *Pollution of the Sea by Oil (Shipping Levy) Act* 1972; the *Pollution of the Sea by Oil (Shipping Levy Collection) Act* 1972; the *Australian Coastal Shipping Commission Act* 1956-1973, the *Australian Coastal Shipping Agreement Act* 1956, the *Stevedoring Industry Act* 1956-1973, the *Beaches, Fishing Grounds and Sea Routes Protection Act* 1932-1966, the *Submarine Cables and Pipelines Protection Act* 1963-1973, the *Lighthouses Act* 1911-1973, the *Explosives Act* 1961-1973 and the *Supply and Development Act* 1939-1973.

Australian Coastal Shipping Commission

The Commission was established under the *Australian Coastal Shipping Commission Act* 1956-1973 for the purpose of maintaining and operating interstate, overseas and territorial shipping services. It operates as The Australian National Line which at 31 December 1973 comprised 29 vessels, including one large bulk carrier on charter from a foreign owner.

The fleet includes four vessels in overseas trading: the 14,307 tonne deadweight vehicle deck/container ship, *Australian Enterprise*; the 26,843 tonne deadweight cellular/container ship, *Australian Endeavour*; the 26,515 tonne deadweight cellular/container ship, *Australian Exporter*; the 20,600 tonne deadweight roll-on/roll-off ship, *Allunga*. The coastal fleet includes two vehicle deck passenger ships, *Empress of Australia*, 8,196 tons gross and *Australian Trader*, 7,005 tons gross; six vehicle-deck cargo ships totalling 31,353 deadweight tonnes; one container ore carrier of 12,092 deadweight tonnes in the Darwin trade; three bulk carriers in the 50,800 deadweight tonnes class, twelve other bulk carriers totalling 121,858 deadweight tonnes; and one 3,170 deadweight tonne cellular/container ship.

Orders have been placed for the construction of two 121,920 deadweight tonne bulk ore carriers, a 23,360 deadweight tonne second-generation roll-on/roll-off vessel, and a 6,807 deadweight tonne *Seacoaster* vessel.

The Line operates specialised terminals at Adelaide, Melbourne, Geelong, Burnie, Devonport, Bell Bay, Hobart, Sydney, Port Kembla, Brisbane, Rockhampton (Port Alma), Mackay, Townsville, Cairns and Darwin.

In the year ended 30 June 1973 the vehicular passenger ships *Empress of Australia* and *Australian Trader* carried a total of 125,530 passengers and 41,709 passengers' and trade vehicles between the mainland and Tasmania. Over the same period over 8.8 million tonnes of cargo were carried by Australian National Line vessels.

Australian Shipbuilding Board

Established in March 1941 under the National Security (Shipbuilding) Regulations and constituted in 1948 under the *Supply and Development Act* 1939-1948, the Board consists of a Chairman and five Members, one of whom is also a Member of the Naval Board. Members are appointed by the Minister for Transport.

The functions of the Board are to advise the Minister on the administration of the Government's shipbuilding subsidy scheme, including the consideration of tenders for ships to be built in Australia or overseas, and the recommendation of the prices at which vessels may be purchased and sold on behalf of the Australian Government, and other matters referred to it affecting shipbuilding.

To 31 December 1973, 261 vessels valued at approximately \$566 million had been completed under the Australian Government subsidy scheme. Seventy of the vessels, ranging from customs launches to survey and research vessels, landing craft and lighthouse supply vessels, were built for the Australian Government. The remaining 191 were built with Government subsidy for other ship-owners, including the Australian National Line.

Four major Australian shipyards are building merchant vessels—one in Queensland, one in South Australia, and two in New South Wales; two shipyards are engaged principally in naval shipbuilding—one in New South Wales and one in Victoria.

Shipbuilding industry assistance. The Australian shipbuilding industry has been subsidised since 1947. The new shipbuilding policy, as announced by the Australian Government on 18 December 1973, provided that vessels of 150 tons gross or more, and in the case of fishing vessels, 21 metres or more in length, would be eligible for assistance. Vessels intended for use by Australian flag operators in international trade, and modifications exceeding \$500,000 in cost to existing vessels, are also eligible for assistance. Rates of subsidy are to be phased down gradually from a maximum level of 45 per cent of cost of construction in 1973 to a long-term rate of 25 per cent by 31 December 1980.

As in the past, all ships are prohibited imports. Certain classes of ships may be imported under general consent, but otherwise the specific approval of the Minister for Transport is required. In respect of new vessels, specific approval to import may be granted where, *inter alia*, public tenders have been called in Australia and overseas, and the after-subsidy price of the lowest acceptable tender from an Australian yard exceeds the price of the lowest acceptable tender from an overseas yard. Secondhand vessels may be authorised for temporary importation only.

Australian Stevedoring Industry Authority

In June 1949 legislation was enacted to abolish the Stevedoring Industry Commission, on which employers and employees were represented, and establish in its place a Stevedoring Industry Board of three members, to attend to administrative matters formerly under the control of the Commission. The industrial functions which previously came within the province of the Commission were assigned to a single Judge of the Commonwealth Court of Conciliation and Arbitration. In August 1956, the Stevedoring Industry Board was replaced by the Australian Stevedoring Industry Authority of three members, including a representative of the management side of industry and a representative of the trade union movement. At the same time the judicial and non-judicial functions formerly exercised by the Commonwealth Court of Conciliation and Arbitration were divided between the Commonwealth Industrial Court and the Commonwealth Conciliation and Arbitration Commission respectively. Awards of the Conciliation and Arbitration Commission subsequently placed payment of sick pay, public holiday pay and annual leave under the administration of the Authority. Under amending legislation, which operated from 6 June 1961, the Authority became responsible for payment of long service leave to registered waterside workers, and its disciplinary powers were strengthened to reduce the time lost through unauthorised stoppages. Further amending legislation which operated from 8 October 1965 made the Authority responsible for the recruitment of waterside workers. In July 1970, by legislative amendment, the management and union positions on the Authority were abolished. The functions of the Authority are now exercised by one full-time Director.

Following adoption of the General Report of the National Stevedoring Industry conference of April 1967, the *Stevedoring Industry (Temporary Provisions) Act 1967* provided for permanent employment of registered waterside workers. This was introduced in Sydney in November 1967 and has since been extended to all the principal ports. Arrangements for a reconstructed labour force in small ports throughout Australia are currently being evolved. Operation of the *Stevedoring Industry (Temporary Provisions) Act*, initially for a period of three years, was extended in 1970, 1972 and 1973 and is currently due to expire on 30 June 1974.

In July 1970 the National Stevedoring Industry Conference was given a statutory basis and redesignated the Stevedoring Industry Council. The Council is constituted along the same lines as the National Stevedoring Industry Conference. Its functions are primarily to advise the Minister for Labor and Immigration on the operation of the existing employment arrangements, the development of new employment schemes and such other matters as the Minister might refer to it. It is also required to endeavour to bring about amicable agreement in relation to industrial questions in the industry.

The statutory provisions relating to the industry are now contained in the *Stevedoring Industry Act 1956-1971*, the *Stevedoring Industry Act 1965*, the *Stevedoring Industry (Temporary Provisions) Act 1967-1973*, the *Stevedoring Industry Charge Act 1947-1973*, the *Stevedoring Industry Charge Assessment Act 1947-1971* and Division 4 of Part III of the *Conciliation and Arbitration Act 1904-1973*.

Restrictive Trade Practices Act 1971-1972 (Part XII—Overseas Cargo Shipping)

The Overseas Cargo Shipping provisions of the Restrictive Trade Practices Act are administered by the Minister for Transport.

The legislation is an extension of similar provisions previously enacted under the *Trade Practices Act 1965-1969* (now repealed) and the *Restrictive Trade Practices Act 1971* (as amended).

The object of the Overseas Cargo Shipping provisions is the control of the operations of shipping conferences (associations into which shipowners have traditionally combined) and of individual shipowners in relation to the carriage of goods by sea from Australia to other countries. To achieve that object the provisions are designed to facilitate negotiations between shipowners and 'The Australian Shippers' Council', an association, designated under the Act by the Minister, that represents the interests of shippers and producers of goods exported from Australia.

Regarding shipping conferences, the provisions require certain agreements of a specified character between shipowners operating in the outward trades from Australia to be filed with the Clerk of Shipping Agreements. A shipowner who is a party to such an agreement may be requested, by the Minister, to give to the Minister an undertaking to negotiate with the Council with regard to the arrangements for, and the terms and conditions that are applicable to, cargo shipping to which the agreement relates. Whether such a shipowner has failed so to negotiate or whether the services provided pursuant to the agreement are adequate, efficient or economical, are matters that may be referred by the Minister for enquiry and report by the Trade Practices Tribunal. Certain powers are vested in the Governor-General to disapprove the agreement after consideration of a report by the Tribunal to the Minister. A probable effect of such a disapproval would be to force a shipowner party to the agreement to carry on its business in the absence of any agreement with other shipowners. The Governor-General may, however, in his discretion approve such a shipowner entering into another agreement.

Provisions, similar to the provisions in respect of shipping conferences, apply in respect of individual shipowners. In addition, an individual shipowner may, as a result of a declaration by the Governor-General, be prohibited from engaging in certain specified activities in carrying on its business, for example engaging in freight cutting with the object of substantially damaging the business of another shipowner.

The provisions also secure reasonable rights for Australian flag operators in respect of the operation of their vessels in trades from Australia.

Maritime Industry Commission of Inquiry

The Commission was established in September 1973 with the following terms of reference:

To ensure that the development of the Australian maritime industry proceeds in harmony with the overall transportation policies and general economic and social aims of the Government and that that development should have full regard to the encouragement of the best use of manpower resources, the application of modern technological developments and the promotion of safe and efficient working operations.

To inquire into, and report upon, all matters related to the development of the Australian maritime industry, so far as they are matters connected with the peace, order and good government of the Commonwealth and are relevant to the exercise and performance of the powers of the Australian Parliament or the performance of the functions of the Australian Government, and to make recommendations for a comprehensive framework for the long-term development of that industry, having regard to the foregoing objectives and the best overseas' policies and practices and recommendations for the specific programs of action required to achieve those objectives.

The inquiry and recommendations shall include, in addition to all other relevant matters, the following specific matters, namely:

- the need for revision and modernisation of existing legislation;
- the most appropriate administrative and organisational arrangements for the exercise of operational and safety policies, standards and controls over the maritime industry;
- the significance of international treaties, conventions and agreements for the industry, and the need for Australian initiatives in relation thereto;
- a desirable program for modernisation and extension of navigational aid systems;
- the adequacy of existing port and associated facilities and their future development requirements, having regard to such factors as location, capacity and user needs, and the requirements of interstate and international trade and commerce; and
- the training requirements of the industry, including the establishment of an Australian Merchant Marine College.

Collection and presentation of statistics

Basic documents

From 1 July 1966 shipping statistics have been compiled by the Australian Bureau of Statistics from returns submitted by shipping companies or their representatives to Customs Houses at the various seaports throughout Australia. A return is required for the departure of a vessel from a port as well as for its arrival at that port.

Scope of the statistics

Arrivals and departures of vessels are treated separately in shipping statistics. Not all vessels are included in the statistics as returns are not required for (i) naval vessels; (ii) yachts and other craft used for pleasure; (iii) foreign fishing vessels that neither load nor discharge cargo; (iv) Australian registered fishing vessels operating from Australian ports; (v) geographical survey vessels, seismic survey vessels, oceanographic survey vessels; (vi) offshore oil drilling rigs and vessels servicing them; (vii) vessels of 200 registered net tons and under.

Period covered by the statistics

Monthly shipping statistics relate to vessels arriving at and departing from each port in a calendar month. Annual statistics are published on a financial year basis.

Statistics of vessels

Statistics of vessels are compiled in terms of registered net tonnages. Net tonnage is expressed in units of 100 cubic feet (i.e. 100 cu ft equals 1 ton) and represents the volume of enclosed space which can be utilised for cargo or passengers.

Statistics of vessel movements

Returns show the last or next port of call of a vessel according to whether an arrival or departure at a port is being reported. Each vessel is classified to either the overseas or the coastal fleets serving Australia. This information, supplemented by the voyage of the vessel indicated by ports it visits to load or discharge cargo, is the basis on which each vessel movement is allocated to one of the following classifications: overseas direct; overseas via other States; interstate direct; interstate via ports in the same State; intrastate.

Cargo loaded or discharged

Returns for arrivals show cargo discharged, and for departures cargo loaded, in terms of tonnes or cubic metres, depending on the basis on which freight is charged.

Type of service

Overseas shipping cargo statistics are classified by type of service. Coastal shipping cargo statistics, on the other hand, combine all service types.

For overseas shipping, cargo shipped in liners is shown separately from cargo shipped in tramps, bulkships and tankers. A liner is a vessel which, on the voyage on which cargo is loaded or discharged at an Australian port, is operated to provide services on a specified route on a relatively regular basis.

Statistics of cargo shipped in liner services do not necessarily provide a measure of cargo carried by ships operating under shipping conference arrangements. For example, liner services may be provided by shipping companies which are not parties to conference agreements. Cargo may also be shipped under shipping conference conditions in vessels operating on a voyage charter basis for specific cargo, and, in the statistics, such cargo is classified as cargo shipped in tramp vessels.

Country of loading or discharge of overseas cargo

In statistics of overseas shipping cargo, country of loading or discharge of cargo is the country of location of the port where the cargo was loaded on to, or is to be discharged from, a reporting vessel. The countries shown are not necessarily the countries of origin or ultimate destination of cargo because previous or subsequent transshipments of cargo are not taken into account. The statistics of cargo classified by the country in which it was loaded or discharged cannot therefore be compared directly with statistics of overseas trade classified by country of origin or consignment.

Transhipments of cargo within Australia

The State of loading or discharge shown in the statistics is the State in which cargo is loaded onto, or discharged from, reporting vessels. Cargo loaded in a given State can therefore include cargo previously shipped interstate, while cargo discharged can include cargo which would subsequently be shipped interstate.

Units of measurement

Deadweight tonnage. A measure of the total mass (weight) of cargo, fuel, potable water, boiler feed water, ballast, stores, crew and their gear, etc. It is equal to loaded displacement tonnage less light displacement tonnage.

Gross tonnage. A measure of the enclosed internal volume of a ship and its superstructure, with certain spaces exempted. It is also an indicator of the total volumetric size of a ship.

Net tonnage. A volumetric measure consisting of the gross tonnage less the volume of non-earning spaces, e.g. master's cabin, crew accommodation, wheelhouse, galley, etc., and an allowance for machinery spaces. Volumetric measurement of ships have not yet been converted to metric.

Overseas shipping**Total movement**

The following table shows the number of entrances and clearances (combined) of vessels from and to overseas countries, and the aggregate net tonnage involved.

OVERSEAS SHIPPING: ENTRANCE AND CLEARANCES (COMBINED) OF VESSELS DIRECT, AUSTRALIA(a)

	1968-69	1969-70	1970-71	1971-72	1972-73
Number of vessels.	8,750	10,022	11,054	10,886	11,278
Net tonnage . . . '000 tons	72,578	89,058	102,219	106,636	124,659

(a) Excludes vessels of 200 net tons and under.

Particulars of the total overseas movement of shipping for each year from 1822 to 1920-21 were published in Year Book No. 15, page 507, those for each year from 1921-22 to 1950-51 in Year Book No. 40, page 97, while those for each year from 1946-47 are shown in the Statistical Summary of this Year Book.

Total overseas shipping

The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to overseas countries, and the aggregate net tonnage involved.

OVERSEAS SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT(a), 1972-73

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances . . . number	1,422	535	1,196	239	1,843	172	240	5,647
	'000 net tons	12,267	3,234	12,066	2,025	29,059	2,156	1,821	62,628
Clearances . . . number	1,082	514	1,405	321	1,943	154	212	5,631
	'000 net tons	9,718	3,902	13,366	1,905	29,235	2,113	1,792	62,031

(a) Excludes vessels of 200 net tons and under.

Country of registration of overseas shipping

Particulars of overseas shipping which entered Australian ports are given in the following table according to country of registration of vessels.

OVERSEAS SHIPPING: ENTRANCES DIRECT, BY COUNTRY OF REGISTRATION OF VESSELS AUSTRALIA (a)
(*000 net tons)

Vessels registered at ports in				Vessels registered at ports in			
	1970-71	1971-72	1972-73		1970-71	1971-72	1972-73
Australia	446	529	358	Panama	1,156	1,042	1,159
Denmark	569	492	909	Sweden	1,027	887	1,143
France	552	669	533	United Kingdom	8,632	8,972	11,246
Germany, Federal Republic of .	952	1,388	2,022	United States of America	394	300	308
Greece	3,953	3,068	3,179	Other countries	2,851	3,634	4,288
Hong Kong	459	566	262				
India	692	684	607	All countries—			
Italy	694	639	752	In cargo	17,571	17,655	17,736
Japan	11,868	14,780	19,900	Proportion of total %	34.6	33.2	28.3
Liberia	10,543	9,501	8,044	In ballast	33,249	35,489	44,892
Netherlands	1,078	1,086	1,061	Proportion of total %	65.4	66.8	71.7
New Zealand	337	325	328				
Norway	4,617	4,582	6,528	Grand total	50,820	53,144	62,628

(a) Excludes vessels of 200 net tons and under.

Australian registered tonnage which entered Australian ports from overseas during the year 1972-1973 represented 0.57 per cent of the total tonnage entered.

Interstate shipping

Interstate movement

Interstate direct. The following table shows the number of entrances and the net tonnage of coastal vessels recorded into each State and the Northern Territory from any other State during 1972-73. The statistics below are not comparable with those for years prior to 1969-70 because the method of applying the classifications 'overseas' and 'interstate' has been changed. Before July 1969 movements of overseas vessels carrying cargo between two Australian States were classified as 'interstate direct' and were, therefore, included in these statistics. Since July 1969 overseas vessels carrying cargo between two Australian States have been classified as 'overseas via States' and are, therefore, excluded from these statistics. The difference in treatment arose from the practice of classifying movements between two Australian States on the basis of port of loading and port of discharge, whereas the current method classifies these movements on the basis of whether the vessel is considered to be an overseas or a coastal one. Total interstate movements by coastal and overseas vessels are shown in *Total interstate movements* below.

INTERSTATE MOVEMENT: ENTRANCES OF COASTAL VESSELS INTERSTATE DIRECT 1972-73(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Number of vessels	1,185	1,437	370	572	260	1,308	83	5,215
Net tonnage '000 tons	8,441	7,693	2,581	3,538	2,667	3,552	325	28,797

(a) Excludes vessels of 200 net tons and under.

Overseas via States. The figures in the following table show the number and aggregate net tonnage of entrances and clearances of overseas vessels which, having arrived at an Australian port direct from an overseas port, continue their voyages from/to overseas countries via other Australian States. The statistics in the following table are not comparable with those prior to 1 July 1969 because of the change in method of classifying some overseas vessel movements referred to under *Interstate direct*, see above.

INTERSTATE MOVEMENT: ENTRANCES AND CLEARANCES OF VESSELS OVERSEAS VIA OTHER AUSTRALIAN STATES, 1972-73(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances number	1,693	1,495	1,177	767	890	392	57	6,471
'000 net tons	9,056	9,590	5,911	4,147	5,657	1,882	323	36,566
Clearances number	2,019	1,509	970	697	768	409	83	6,455
'000 net tons	11,587	8,879	4,505	4,434	4,915	1,885	333	36,539

(a) Excludes vessels of 200 net tons and under.

Total interstate movement. The following table shows, for each State and the Northern Territory, the total number of entrances and clearances of vessels from and for other States during the year 1972-73 together with the aggregate net tonnage.

**INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES
STATES AND NORTHERN TERRITORY, 1972-73(a)**

		<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>Aust.</i>
Entrances	number	2,878	2,932	1,547	1,339	1,150	1,700	140	11,686
	'000 net tons	17,497	17,284	8,493	7,684	8,323	5,433	648	65,363
Clearances	number	3,198	2,941	1,328	1,260	1,035	1,704	167	11,633
	'000 net tons	19,884	16,498	7,072	7,822	7,925	5,409	664	65,273

(a) Excludes vessels of 200 net tons and under.

The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States, for Australia.

INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES AUSTRALIA

		<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Entrances	number	10,830	10,843	12,169	12,128	11,686
	'000 net tons	47,005	53,732	65,141	66,140	65,363
Clearances	number	10,824	10,781	12,113	12,146	11,633
	'000 net tons	47,070	53,523	64,843	66,228	65,273

(a) Excludes vessels of 200 net tons and under.

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 200 gross tons or more engaged in the regular overseas, interstate or intrastate services at 31 December 1973.

**AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
31 DECEMBER 1973**

(Source: Department of Transport)

<i>Vessels</i>	<i>Number</i>	<i>Dead-weight tons</i>	<i>Gross tons</i>
Interstate vessels—			
Australian-owned, Australian-registered	62	892,974	633,109
Overseas-owned, Australian-registered, engaged in Australian coastal trade—			
New Zealand-owned	6	19,724	17,440
Other	6	216,061	135,778
Overseas-owned, overseas-registered, on charter, engaged in Australian coastal trade	11	478,797	276,920
Total interstate vessels	85	1,607,556	1,063,247
Intrastate vessels	23	197,375	125,768
Total coastal trading vessels	108	1,804,931	1,189,015
Overseas trading vessels—			
Australian-owned, Australian-registered operated mainly on overseas services	7	104,696	84,495
Australian-owned, overseas-registered operated wholly on overseas services	3	24,664	19,677
Total overseas trading vessels	10	129,360	104,172
Total Australian trading vessels	118	1,934,291	1,293,187

Shipping at principal ports

For details of Harbour Boards and Trusts in each State see the chapter Public Finance.

The following table shows the total volume of shipping—overseas and coastal—entering the principal ports of Australia.

TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA(a)

Port of entry	1971-72		1972-73		Port of entry	1971-72		1972-73	
	Number	Net tons	Number	Net tons		Number	Net tons	Number	Net tons
		'000		'000			'000		'000
New South Wales—					Western Australia—				
Sydney(b)	3,652	19,562	3,530	18,812	Fremantle(d)	1,524	11,657	1,404	10,503
Newcastle	1,197	7,460	963	6,760	Albany	167	1,021	156	1,041
Port Kembla	932	5,818	923	6,565	Bunbury	138	776	135	789
Victoria—					Carnarvon	20	32	16	24
Melbourne	2,823	14,003	2,708	13,492	Geraldton	123	791	128	813
Geelong	559	4,412	466	3,251	Yampi	149	1,315	129	1,344
Queensland—					Port Hedland	546	8,718	553	11,855
Brisbane	1,469	8,144	1,438	8,374	Dampier	396	6,522	434	8,942
Bowen	34	123	26	87	Tasmania—				
Cairns	176	524	214	721	Hobart	612	1,730	592	1,662
Gladstone	372	5,179	380	5,685	Burnie	425	1,542	430	1,401
Mackay	242	977	215	973	Devonport	493	1,048	487	1,728
Rockhampton	134	559	138	501	Launceston	468	1,614	464	1,985
Townsville	370	1,528	345	1,500	Port Latta	40	754	50	874
Weipa	279	3,326	261	3,603	Northern Territory—				
South Australia—					Darwin	232	979	212	1,044
Adelaide(c)	1,263	6,116	1,240	5,589	Groote Island	82	408	95	566
Port Lincoln	110	668	137	729					
Port Pirie	183	899	175	885					
Rapid Bay	31	124	39	170					
Walleroo	29	179	29	147					
Whyalla	276	2,565	333	2,843					

(a) Excludes vessels of 200 net tons and under. (b) Includes Botany Bay. (c) Includes Port Stanvac. (d) Includes Kwinana.

Shipping cargo

Overseas and interstate cargo

The table on page 360 shows the aggregate tonnage of overseas and interstate cargo discharged and shipped at principal Australian ports.

CARGO DISCHARGED AND SHIPPED: AUSTRALIA ('000)

Year	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres
1968-69	29,768	5,903	55,838	2,327	18,449	2,448	18,808	2,188
1969-70	28,654	1,313	78,082	2,409	20,634	2,546	20,807	2,299
1970-71	21,754	5,742	101,818	2,959	24,171	2,722	24,934	2,485
1971-72	19,505	5,865	108,047	3,161	25,801	3,087	26,387	2,799
1972-73	20,167	6,084	132,362	3,555	27,364	3,136	28,006	2,927

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1972-73

('000)

Port	Overseas cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres
New South Wales—								
Sydney	2,407	2,272	3,628	1,427	2,791	298	294	263
Botany Bay	1,555	..	95	..	3,470	..	71	..
Newcastle	1,254	3	7,017	1	3,331	..	988	6
Port Kembla	614	8	4,015	6	6,771	..	1,861	..
Other	65	..	407	..	37	..	..	..
<i>Total New South Wales</i>	<i>5,895</i>	<i>2,283</i>	<i>15,162</i>	<i>1,435</i>	<i>16,401</i>	<i>298</i>	<i>3,213</i>	<i>268</i>
Victoria—								
Melbourne	1,928	2,912	1,681	1,316	1,458	1,257	899	1,358
Geelong	1,697	11	1,642	28	483	..	753	1
Portland	254	..	181	..	12	..	18	..
Westernport	187	..	1,434	..	57	9	7,579	11
Other . . . . .	..	..	..	..	..	1	..	..
<i>Total Victoria</i>	<i>4,066</i>	<i>2,923</i>	<i>4,937</i>	<i>1,343</i>	<i>2,009</i>	<i>1,266</i>	<i>9,249</i>	<i>1,372</i>
Queensland—								
Brisbane	925	328	1,441	146	2,969	26	232	32
Cairns	57	..	257	..	15	5	6	6
Gladstone	605	..	3,974	..	34	..	227	..
Mackay	33	..	825	..	19	..	57	..
Townsville	120	8	847	1	87	..	164	..
Other	38	1	1,334	..	9	1	920	..
<i>Total Queensland</i>	<i>1,779</i>	<i>338</i>	<i>25,786</i>	<i>146</i>	<i>3,134</i>	<i>31</i>	<i>1,605</i>	<i>37</i>
South Australia—								
Port Adelaide	498	251	465	215	812	14	234	11
Ardrossan . . . . .	..	..	137	..	..	..	323	..
Port Lincoln	64	..	384	1	33	..	213	..
Port Pirie	10	..	572	..	246	..	275	..
Port Stanvac	1,471	..	3	..	410	..	546	..
Rapid Bay . . . . .	..	..	..	..	..	..	53	..
Whyalla	98	..	1,652	..	1,207	..	4,638	..
Other	52	..	721	..	1	..	493	..
<i>Total South Australia</i>	<i>2,192</i>	<i>251</i>	<i>3,934</i>	<i>216</i>	<i>2,710</i>	<i>14</i>	<i>6,774</i>	<i>11</i>
Western Australia—								
Fremantle	1,042	241	4,128	324	1,104	5	1,472	25
Albany	260	..	417	1	1	..	3	..
Bunbury	213	..	711	34	..	..	53	..
Dampier	240	..	26,177	..	16	20	..	..
Geraldton	96	..	1,475	..	..	..	..	..
Kwinana	2,816	..	381	..	63	..	302	..
Port Hedland	45	2	31,100	..	1	..	2,407	..
Yampi . . . . .	..	..	2,627	..	37	..	717	..
Other	454	14	7,255	17	9	..	841	6
<i>Total Western Australia</i>	<i>5,165</i>	<i>257</i>	<i>74,271</i>	<i>377</i>	<i>1,229</i>	<i>25</i>	<i>5,796</i>	<i>32</i>
Tasmania—								
Hobart	321	12	319	6	637	228	483	160
Burnie	85	2	189	9	249	256	400	161
Launceston	86	4	771	6	653	304	144	211
Port Latta	36	..	2,519	..	16	..	..	..
Other	78	..	619	17	139	651	209	651
<i>Total Tasmania</i>	<i>517</i>	<i>19</i>	<i>4,417</i>	<i>37</i>	<i>1,685</i>	<i>1,438</i>	<i>1,238</i>	<i>1,181</i>
Northern Territory—								
Darwin	287	11	980	..	103	26	2	3
Groote Island	4	..	1,063	..	16	2	130	..
Gove	261	3	1,811	..	78	36	2	23
Other . . . . .	..	..	..	..	..	..	..	..
<i>Total Northern Territory</i>	<i>552</i>	<i>14</i>	<i>3,855</i>	<i>..</i>	<i>197</i>	<i>65</i>	<i>133</i>	<i>26</i>
Australia	20,167	6,084	132,362	3,555	27,364	3,136	28,006	2,927

Overseas cargo according to major trade areas and type of service

The following two tables show particulars of cargo loaded in Australia for discharge overseas, and cargo discharged in Australia from overseas, classified according to the major trade areas of the world, by type of shipping service (i.e. liner or tramp, bulkship and tanker).

CARGO LOADED IN AUSTRALIA FOR DISCHARGE OVERSEAS: MAJOR TRADE AREAS BY TYPE OF SERVICE
(^{'000})

Major trade areas	Liners (a)		Tramps, bulk ships, tankers		All vessels	
	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres
North America and Hawaii—						
1970-71	551	181	4,721	7	4,672	188
1971-72	595	199	4,528	27	5,123	227
1972-73	700	209	4,097	11	4,797	220
South America—						
1970-71	53	12	550	..	603	12
1971-72	41	6	628	..	669	6
1972-73	35	13	787	4	821	17
Europe (including U.S.S.R.)—						
1970-71	1,141	609	15,100	..	16,241	609
1971-72	1,195	567	15,959	58	17,154	623
1972-73	1,296	771	19,560	20	20,856	791
Africa—						
1970-71	204	116	1,984	1	2,119	117
1971-72	171	103	2,591	8	2,763	111
1972-73	149	125	1,091	..	1,240	125
Asia—						
Eastern Asia—						
1970-71	1,166	444	71,128	11	72,294	455
1971-72	1,056	418	75,853	41	76,909	459
1972-73	1,431	540	98,471	20	99,902	560
Other Asia—						
1970-71	767	424	3,114	136	3,881	560
1971-72	749	437	2,908	262	3,658	699
1972-73	803	446	2,289	212	3,092	658
Total Asia—						
1970-71	1,934	868	74,242	147	76,175	1,015
1971-72	1,806	855	78,761	304	80,567	1,159
1972-73	2,233	986	100,760	232	102,993	1,217
Papua New Guinea, New Zealand and Pacific Islands—						
1970-71	587	951	1,322	59	1,909	1,010
1971-72	525	939	1,218	89	1,744	1,028
1972-73	562	1,097	1,062	80	1,624	1,177
Indian Ocean Islands and Antarctic Area—						
1970-71 . . . . .	..	..	29	6	29	6
1971-72 . . . . .	..	..	29	8	29	8
1972-73 . . . . .	..	..	30	8	30	8
Total loaded						
1970-71	4,470	2,738	97,348	220	101,818	2,959
1971-72	4,332	2,666	103,714	495	108,047	3,161
1972-73	4,976	3,200	127,387	355	132,362	3,555

(a) Cargo and passenger liners.

**CARGO DISCHARGED IN AUSTRALIA FROM OVERSEAS: MAJOR TRADE AREAS
BY TYPE OF SERVICE**

('000)

<i>Major trade areas</i>	<i>Liners(a)</i>		<i>Tramps, bulk-ships, tankers</i>		<i>All vessels</i>	
	<i>Tonnes</i>	<i>Cubic metres</i>	<i>Tonnes</i>	<i>Cubic metres</i>	<i>Tonnes</i>	<i>Cubic metres</i>
North America and Hawaii—						
1970-71	464	693	1,330	415	1,794	1,108
1971-72	368	711	1,467	403	1,835	1,115
1972-73	373	709	1,619	417	1,992	1,126
South America—						
1970-71	37	3	11	..	48	3
1971-72	24	2	16	..	41	2
1972-73	6	1	12	..	18	1
Europe (including U.S.S.R.)—						
1970-71	633	1,838	150	177	783	2,015
1971-72	582	1,735	180	134	762	1,869
1972-73	605	1,813	355	66	959	1,879
Africa—						
1970-71	108	66	167	..	274	66
1971-72	92	79	70	..	164	80
1972-73	102	56	104	..	206	56
Asia—						
Eastern Asia—						
1970-71	479	1,197	1,547	317	2,026	1,514
1971-72	424	1,295	1,577	391	2,000	1,685
1972-73	497	1,507	1,782	388	2,279	1,895
Other Asia—						
1970-71	130	488	14,272	75	14,403	563
1971-72	136	466	12,554	102	12,690	567
1972-73	161	504	11,954	76	12,115	580
Total Asia—						
1970-71	609	1,685	15,820	392	16,429	2,077
1971-72	559	1,760	14,131	493	14,691	2,253
1972-73	658	2,011	13,736	464	14,394	2,475
Papua New Guinea, New Zealand and Pacific Islands—						
1970-71	305	441	1,480	33	1,785	473
1971-72	223	464	1,251	80	1,472	546
1972-73	228	499	1,641	47	1,869	546
Indian Ocean Islands and Antarctic Area—						
1970-71 . . . . .	..	..	639	..	639	..
1971-72 . . . . .	..	..	541	1	541	1
1972-73 . . . . .	..	..	728	1	728	1
Total discharged						
1970-71	2,155	4,726	19,598	1,016	21,754	5,742
1971-72	1,848	4,753	17,657	1,112	19,505	5,865
1972-73	1,972	5,090	18,195	994	20,167	6,084

(a) Cargo and passenger liners.

Overseas cargo according to country of registration of vessels

The following table shows the total overseas cargo, discharged and shipped combined, according to the country in which the vessels were registered.

**OVERSEAS CARGO DISCHARGED AND SHIPPED, BY COUNTRY OF REGISTRATION
OF VESSELS: AUSTRALIA
(^{'000})**

Vessels registered at ports in	1970-71		1971-72		1972-73	
	Tonnes	Cubic metres	Tonnes	Cubic metres	Tonnes	Cubic metres
Australia	659	435	658	522	605	505
Denmark	1,254	137	1,007	151	2,103	189
France	1,152	78	1,360	156	1,118	142
Germany, Federal Republic of	1,841	533	2,665	563	4,070	588
Greece	9,546	122	7,161	148	7,299	171
Hong Kong	950	69	1,284	66	635	124
India	1,551	94	1,634	78	1,370	72
Italy	1,005	65	955	58	1,423	66
Japan	36,281	1,019	45,110	904	59,719	1,013
Liberia	27,578	254	23,475	282	19,714	223
Netherlands	2,211	351	2,162	341	2,330	357
New Zealand	569	745	459	848	502	973
Norway	11,653	510	11,726	428	16,284	498
Panama	2,856	53	2,208	92	1,912	54
Sweden	2,525	569	2,132	599	2,573	541
United Kingdom	15,410	2,747	16,392	2,883	22,479	3,028
United States of America	597	215	297	200	161	237
Other	5,934	703	6,866	708	8,231	856
Grand total	123,572	8,700	127,552	9,026	152,529	9,639

World shipping tonnage

At 1 July 1973 the total number of steamships and motorships 100 gross tons and upwards throughout the world was 59,606 with a gross tonnage of 289,926,686. Of those totals, steamships numbered 6,482 for 103,569,993 gross tons, and motorships 53,124 for 186,356,693 gross tons. This includes 6,607 oil tankers of 100 gross tons and upwards with a gross tonnage of 115,365,200. Australian steamships and motorships, 373 for 1,160,205 gross tons constituted 0.63 per cent and 0.40 per cent respectively of the total number and gross tonnage. This information has been derived from *Lloyd's Register of Shipping*.

Vessels registered in Australia

The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 31 December 1973, classified according to: (i) year of construction; (ii) type of trade in which the vessels were engaged; and (iii) vessels built in Australian or in overseas shipyards.

AUSTRALIAN-REGISTERED TRADING VESSELS, 31 DECEMBER 1973(a)

(Source: Department of Transport)

Year of construction	Overseas and interstate vessels		Intrastate vessels		Built in Australian yards		Built overseas		Total	
	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons
1969 and earlier	64	656,697	18	63,146	52	493,531	30	226,312	82	719,843
1970	5	62,144	..	..	4	52,814	1	9,330	5	62,144
1971	3	55,364	1	357	2	39,416	2	16,305	4	55,721
1972	4	56,639	1	48,947	4	82,100	1	23,486	5	105,586
1973	2	10,368	1	15,470	3	25,838	..	..	3	25,838
Total registered in Australia	78	841,212	21	127,920	65	693,699	34	275,433	99	969,132

(a) 200 gross tons and over.

Miscellaneous

Shipping freight rates

Lists of shipping freight rates for selected commodities are shown in the *Quarterly Summary of Australian Statistics*.

Shipping casualties

Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping losses and casualties reported on or near the coast are shown in the table below.

SHIPPING CASUALTIES TO OVERSEAS AND INTERSTATE STEAM AND MOTOR VESSELS(a): AUSTRALIA

Year	Shipping losses			Other shipping casualties			Total shipping casualties		
	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost
1968-69	105	434,028	..	105	434,028	..
1969-70	1	734	21	83	318,024	..	84	318,758	21
1970-71	79	451,196	2	79	451,196	2
1971-72	91	499,195	2	91	499,195	2
1972-73	61	345,102	..	61	345,102	..

(a) Vessels over 50 net tons.

Lighthouses; distances by sea; depth of water and tides at main ports

A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light will be found in *Transport and Communication*, Bulletin No. 63 (14.11).

The distances by sea between principal ports of Australia and some important ports in other countries which trade with Australia and the depths of water and tides at principal ports of Australia will be found in *Transport and Communication*, Bulletin No. 63.

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1972-73 a total of 92.5 million tonnes of freight were carried, an increase of 94.3 per cent over the 47.6 million tonnes carried in 1953-54. However, in the same twenty-year period the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 21.7 per cent from 511 millions in 1953-54 to 400 millions in 1972-73. The number of train kilometres run during 1972-73 (152 million) was only 1.3 per cent greater than in 1953-54, which is an indication of the trend towards heavier train loads with the more powerful motive power now available. Since the introduction of the first mainline diesel-electric locomotives in 1950 their numbers have increased greatly until at 30 June 1973 there were 1,413 throughout Australia. Diesel-electric locomotives during 1972-73 hauled 97 million train-kilometres, while steam locomotives hauled only 301 thousand train-kilometres.

Railway development

The first steam-operated railway in Australia ran between Melbourne and Port Melbourne, a distance of three kilometres, and was opened on 12 September 1854. It was owned and operated by the Melbourne and Hobson's Bay Railway. Within a short time privately-owned railways opened in other States, but owing to the small volume of traffic available they were soon in financial difficulties and all were taken over by the respective State Governments. Under the policy of Government ownership and control the railway networks expanded until at 30 June 1941 there were 43,829 route-kilometres open for traffic in Australia. This was the greatest length ever recorded. Since the 1939-45

War many uneconomic branch lines have been closed. From 1 July 1948 to 30 June 1973, 5,629 kilometres have been closed, the greatest lengths being in Western Australia (1,656 kilometres), Queensland (1,445 kilometres), and Victoria (1,003 kilometres). During this same period 2,322 kilometres of new railway were added to the networks. The following table sets out the route-kilometres of government railways in each State and Territory at various dates since 1855.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, 1855 TO 1973
(Kilometres)

30 June—	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a)	23	3	..	11	..	..	..	..	37
1861(a)	117	183	..	90	..	..	..	..	390
1871(a)	576	444	351	214	..	72	..	..	1,657
1881(a)	1,603	2,007	1,287	1,339	148	72	..	..	6,456
1891	3,512	4,447	3,533	2,681	319	565	233	..	15,290
1901	4,580	5,209	4,508	2,794	2,181	735	233	..	20,240
1911	6,054	5,670	6,225	3,114	3,824	756	233	..	25,876
1921	8,116	6,867	9,257	5,485	6,425	1,014	320	8	37,492
1931	10,054	7,265	10,507	5,995	7,458	1,070	510	8	42,867
1941	10,248	7,271	10,569	6,130	7,781	1,033	789	8	43,829
1951	10,226	7,154	10,557	6,124	7,535	987	789	8	43,380
1961	10,144	6,518	10,177	6,173	7,366	832	789	8	42,007
1969	10,083	6,392	9,373	6,050	6,888	805	789	8	40,388
1970	10,129	6,376	9,355	5,977	6,891	805	789	8	40,330
1971	10,129	6,376	9,329	5,927	6,906	805	789	8	40,269
1972	10,129	6,357	9,560	5,829	6,846	805	789	8	40,323
1973	10,129	6,357	9,560	5,904	6,897	830	789	8	40,474

(a) At 31 December.

One feature of the Australian government railways is the variety of gauges to which they are built. There are three principal gauges, 'broad' (1,600 mm), 'standard' (1,435 mm), and 'narrow' (1,067 mm). Extensive route-kilometres of 1,067 mm gauge railway were built in areas where traffic volumes were initially known to be small and where it was imperative to minimise the costs of construction. The following table shows the route-kilometres open in each State and Territory at 30 June 1973 according to gauge.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE, 30 JUNE 1973
(Kilometres)

Gauge	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1600 mm	(a)328	(b)6,018	..	2,527	..	..	..	..	8,873
1435 mm	(c)9,801	325	112	(d)1,826	(e)1,507	..	..	(f)8	13,579
1067 mm	..	..	9,400	(g)1,551	(h)5,390	830	(i)789	..	17,960
762 mm	..	14	..	..	..	..	..	..	14
610 mm	..	..	48	..	..	..	..	..	48
Total	10,129	6,357	9,560	5,904	6,897	830	789	8	40,474
Per 1,000 of population	2.15	1.77	4.99	4.92	6.45	2.10	8.25	0.05	3.08
Per 1,000 square kilometre	12.64	27.93	5.53	6.00	2.73	12.15	0.59	3.29	5.27

(a) Portion of Victorian Railway System. (b) Excludes 325 route-kilometres of 1600 mm gauge which almost parallels the 1435 mm gauge line between Melbourne and Murray River. (c) Includes 47 route-kilometres of 1435 mm gauge line from Broken Hill to Cockburn owned and operated by the South Australian Government Railways. (d) Comprises 1128 kilometres of the Trans-Australian and 349 kilometres of the Central Australia Railway systems and 349 kilometres from Port Pirie to Cockburn. (e) Includes 731 kilometres of the Trans-Australian Railway system. (f) Australian Capital Territory Railway system. (g) Includes 591 kilometres of the Central Australia Railway system. (h) Excludes 121 kilometres of 1067 mm/1435 mm dual gauge line which are included in the 1435 mm gauge line. (i) Comprises 278 kilometres of the Central Australia and 510 kilometres of the North Australia Railway systems.

Government railway systems

There are six separate State Government railway systems and the Commonwealth Railway system. As the Commonwealth Railways includes routes in South Australia and Western Australia, and the Victorian system extends into New South Wales, the system route-kilometres shown in the following table do not represent route-kilometres within each State and Territory. These are shown in the previous table. The route-kilometres of each system open for traffic, according to gauge, at 30 June 1973 is shown in the following table.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE AND SYSTEM
30 JUNE 1973
(Kilometres)

System	Gauge					Total
	1600 mm	1435 mm	1067 mm	762 mm	610 mm	
New South Wales . . . . .	..	(a)9,754	..	..	..	9,754
Victoria	(b)6,346	325	..	14	..	6,685
Queensland . . . . .	..	112	9,400	..	48	9,560
South Australia	2,527	396	961	..	..	3,884
Western Australia . . . . .	..	777	(c)5,390	..	..	6,167
Tasmania . . . . .	..	..	830	..	..	830
Commonwealth . . . . .	..	2,216	1,379	..	..	3,595
Australia	8,873	13,579	17,960	14	48	40,474

(a) Includes 435 route-kilometres which are electrified. (b) Excludes 325 route-kilometres of 1600 mm gauge line which almost parallels the 1435 mm gauge line between Melbourne and Murray River. Includes 420 route-kilometres which are electrified. (c) Excludes 121 kilometres of 1067 mm/1435 mm dual gauge line which are included in the 1435 mm gauge line.

The New South Wales system is based on Sydney and extends throughout the State. The Victorian system based on Melbourne radiates throughout the State, extending into areas of southern New South Wales. The Queensland system extends along the coast from Brisbane to Cairns in the north, while branch lines extend inland from Brisbane and the larger coastal cities of Rockhampton and Townsville. The main South Australian system is in the south-east of the State, but an isolated narrow-gauge system operates in the Eyre Peninsula area. The railway system in Western Australia is established in the south-western section of the State, but extends north to Meekatharra and east to Kalgoorlie and Esperance. In Tasmania the main line connects Hobart and Launceston, and there are branch lines along the northern coast.

Commonwealth Railways comprises four separate railways. The Trans-Australian Railway, extending from Port Pirie to Kalgoorlie, is of standard gauge, as is that part of the Central Australia Railway from Port Augusta (Sterling North) to Marree. A further extension of this railway from Marree to Alice Springs is of narrow gauge, as is the North Australia Railway from Darwin to Birdum. The Australian Capital Territory Railway from Queanbeyan to Canberra is of standard gauge. In this chapter particulars of the four Commonwealth railways are combined; however, particulars for each railway are shown separately in the annual bulletin *Transport and Communication*.

Standardisation of railway gauges

Information about standardisation of railway gauges, completion and commencement dates of services and centres linked are given in Year Book No. 58, 1972, page 348.

GOVERNMENT AND PRIVATE RAILWAYS 1965-66 TO 1972-73 FREIGHT TRAFFIC

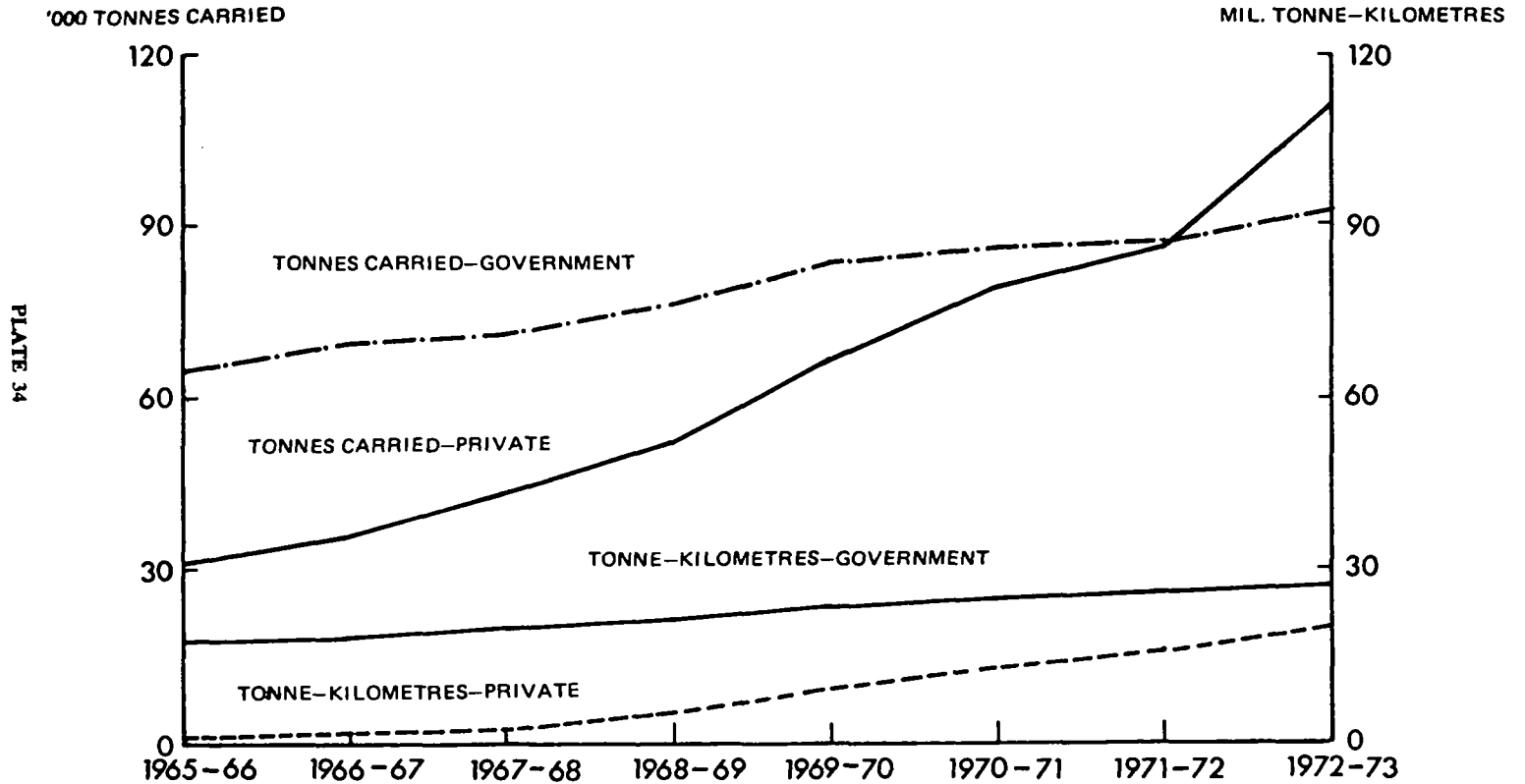


PLATE 34

GOVERNMENT RAILWAYS

Future developments in standardisation

The Australian Government has announced its intention to finance a standard gauge connection between Adelaide and the new standard gauge railway at Crystal Brook. Details of the connection have yet to be decided. When this link is forged all mainland state capital cities will then be connected to the interstate standard gauge network. However, the direct link between Adelaide and Melbourne will still be broad gauge (1,600 mm).

The Australian and South Australian Governments have signed an agreement to build a new standard gauge railway about 840 kilometres long between Tarcoola on the Trans-Australian Railway, and Alice Springs to replace the existing narrow gauge railway between Marree and Alice Springs. Survey work has commenced.

The West Australian Government has converted to standard gauge the existing narrow gauge railway between Kalgoorlie and Esperance, a distance of about 415 kilometres and is planning to standardise the line north of Kalgoorlie and Leonora.

Operations of Government railway systems

Particulars of train-kilometres, passenger-journeys, passenger-kilometres, freight tonnes carried, and freight tonne-kilometres included in this section refer only to operations for which revenue is received.

Summary of operations**GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1972-73**

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Cwth</i>	<i>Aust.</i>
Train-kilometres								
(⁰⁰⁰)(a)—								
Suburban passenger	16,715	13,291	3,236	3,378	2,232	180	..	39,032
Country passenger	16,181	7,747	4,367	1,948	1,676	380	1,602	33,901
Goods(b)	27,045	12,020	21,919	4,699	7,761	1,400	4,257	79,101
Total	59,941	33,058	29,523	10,024	11,669	1,960	5,859	152,035
Passenger-journeys								
(⁰⁰⁰)(c)—								
Suburban	194,140	131,009	30,500	13,478	11,143	559	..	380,829
Country(d)	11,985	4,180	1,645	564	376	193	222	19,165
Total	206,125	135,189	32,145	14,042	11,518	752	(e)222	399,993
Passenger-kilometres								
(⁰⁰⁰)(f)—								
Suburban	n.a.	1,973,886	n.a.	172,444	n.a.	6,609	..	n.a.
Country	n.a.	561,273	n.a.	139,726	126,337	17,728	209,527	n.a.
Total	n.a.	2,535,160	n.a.	312,170	n.a.	24,337	209,527	n.a.
Freight—								
Tonnes carried								
(⁰⁰⁰)(d)	31,044	11,475	24,666	5,781	13,706	1,554	4,255	92,481
Net tonne-kilometres								
(million)(g)	8,117.6	3,164.8	7,613.1	1,588.4	3,686.2	210.6	2,201.1	26,581.7

(a) One train (i.e. a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one kilometre for revenue purposes. (b) Includes mixed train-kilometres. (c) Based on ticket sales making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys. (d) Inter-system traffic is included in the total for each system over which it passes. (e) Passenger-journeys continuing over both the Trans-Australian and Central Australia Railway Systems are counted twice. In 1972-73 these numbered 9,144. (f) One passenger travelling one kilometre. (g) One tonne carried one kilometre.

Rolling stock

GOVERNMENT RAILWAYS: ROLLING STOCK INCLUDED IN CAPITAL ACCOUNT
(Number)

System and date	Locomotives				Total	Coaching stock(b)	Goods stock	Service stock
	Steam	Diesel- electric	Electric	Other(a)				
30 June 1973—								
New South Wales	38	426	41	85	590	3,166	17,640	2,071
Victoria	26	249	35	81	391	2,403	19,029	1,588
Queensland . . . . .	..	378	..	81	459	1,187	19,976	2,084
South Australia	4	151	..	..	155	406	7,213	635
Western Australia	2	186	..	23	211	439	11,366	691
Tasmania	16	44	..	21	81	119	2,131	174
Commonwealth	1	105	..	..	106	81	2,524	536
Australia	87	1,539	76	291	1,993	(c)7,982	(c)79,913	(c)7,800
30 June—								
1972.	168	1,489	76	267	2,000	8,178	81,135	8,033
1971.	200	1,447	76	256	1,979	8,183	82,279	8,141
1970.	368	1,388	76	230	2,062	8,281	83,840	8,205
1969.	753	1,283	76	209	2,321	8,127	84,584	7,972

(a) Includes non-passenger-carrying diesel power vans. (b) Includes all brake vans and non-powered electric train stock. (c) Includes jointly-owned stock.

Train-kilometres

Train-kilometres by type of service and motive power

GOVERNMENT RAILWAYS: TRAIN-KILOMETRES 1972-73
(^{'000} kilometres)

	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Cwth.	Aust.
Type of service—								
Passenger—suburban	16,715	13,291	3,236	3,378	2,232	180	..	39,032
Passenger—country	16,181	7,747	4,367	1,948	1,676	380	1,602	33,901
Goods(a)	27,045	12,020	21,919	4,699	7,761	1,400	4,257	79,101
Total	59,941	33,058	29,523	10,024	11,669	1,960	5,859	152,035
Type of motive power—								
Hauled by diesel-electric locomotives	33,191	15,672	26,404	5,703	8,961	1,696	5,676	97,304
Hauled by steam locomotives	267	18	3	6	1	5	..	301
Hauled by electric and other locomotives	3,203	1,564	556	..	..	17	..	5,339
Powered coaching stock	23,281	15,804	2,559	4,315	2,707	242	183	49,091
Total	59,941	33,058	29,523	10,024	11,669	1,960	5,859	152,035

(a) Includes mixed train-kilometres.

Total train-kilometres

TRAIN-KILOMETRES
(^{'000} kilometres)

Year	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Cwth.	Aust.
1968-69	61,479	31,686	27,534	9,939	12,715	1,926	5,728	151,007
1969-70	62,970	33,061	29,391	9,965	12,630	1,899	6,378	156,294
1970-71	63,633	33,524	27,951	10,210	12,785	1,764	6,453	156,370
1971-72	61,176	33,175	29,165	10,018	12,410	1,767	6,013	153,724
1972-73	59,941	33,058	29,523	10,024	11,669	1,960	5,859	152,035

Passenger traffic

Passenger-journeys

GOVERNMENT RAILWAYS: PASSENGER-JOURNEYS(a), SYSTEMS
(^{'000})

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
SUBURBAN								
1968-69	233,211	140,788	25,771	13,760	9,832	838	..	424,200
1969-70	236,347	140,309	26,317	13,441	10,227	712	..	427,354
1970-71	238,800	138,131	27,621	13,393	10,557	636	..	429,139
1971-72	(b)196,097	133,840	30,184	12,918	10,800	597	..	384,436
1972-73	194,140	131,009	30,500	13,478	11,143	559	..	380,829
COUNTRY(c)								
1968-69	15,257	4,078	2,395	664	338	207	298	23,237
1969-70	15,231	4,000	2,197	549	352	194	244	22,768
1970-71	15,987	4,080	1,915	553	362	235	259	23,391
1971-72	(b)12,403	3,954	1,762	515	350	189	207	19,380
1972-73	11,985	4,180	1,645	561	376	193	222	19,165
TOTAL(c)								
1968-69	248,469	144,866	28,165	14,423	10,170	1,045	298	447,437
1969-70	251,578	144,309	28,515	13,990	10,580	907	244	450,122
1970-71	254,787	142,211	29,536	13,946	10,919	871	259	452,530
1971-72	(b)208,500	137,794	31,946	13,433	11,150	785	207	403,816
1972-73	206,125	135,189	32,145	14,042	11,518	752	222	399,993

(a) Based on ticket sales making allowance for periodical tickets. Tickets sold at concession rates are counted as full journeys. (b) Figures for earlier years include unremunerative journeys. (c) Inter-system traffic is included in the total for each system (including each Commonwealth railway) over which it passes.

Passenger-kilometres

GOVERNMENT RAILWAYS: PASSENGER-KILOMETRES(a), SYSTEMS
(^{'000})

Year	Vic.	S.A.	W.A.	Tas.	Cwth
SUBURBAN					
1968-69	2,033,926	180,309	n.a.	8,959	..
1969-70	2,016,436	175,081	n.a.	7,952	..
1970-71	2,068,414	170,674	n.a.	7,279	..
1971-72	1,941,497	161,979	n.a.	6,653	..
1972-73	1,973,886	172,444	n.a.	6,609	..
COUNTRY					
1968-69	592,462	136,204	108,835	18,221	202,153
1969-70	572,532	139,284	120,026	17,212	218,597
1970-71	611,301	147,545	124,193	19,747	227,577
1971-72	534,946	131,084	115,910	16,412	207,409
1972-73	561,273	139,726	126,337	17,728	209,527
TOTAL					
1968-69	2,626,388	316,513	n.a.	27,180	202,153
1969-70	2,588,968	314,364	n.a.	25,164	218,597
1970-71	2,679,715	318,219	n.a.	27,026	227,577
1971-72	2,476,441	293,063	n.a.	23,065	207,409
1972-73	2,535,160	312,170	n.a.	24,337	209,527

(a) Particulars for New South Wales, Queensland and the suburban system in Western Australia are not available and as a consequence, no totals for Australia are available.

Freight traffic

Freight carried

GOVERNMENT RAILWAYS: FREIGHT CARRIED(a), SYSTEMS
(^{'000 tonnes})

Commodity and year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
1972-73—								
Wheat	1,685	1,595	396	564	1,980	..	..	6,220
Other agricultural produce	922	868	2,850	243	460	21	27	5,391
Coal, coke and briquettes	13,506	1,112	16,090	11	163	100	1,590	32,572
Other minerals(b)	3,914	273	1,274	1,665	8,330	98	971	16,525
Wool	147	151	21	25	116	4	5	469
Fertilisers and manure	61	868	147	444	586	100	7	2,213
Cement	1,154	923	214	67	..	295	172	2,825
Timber	231	297	171	92	284	360	53	1,488
Livestock	261	258	601	149	84	13	99	1,465
All other commodities	9,163	5,130	2,902	2,520	1,702	564	1,331	23,312
Total	31,044	11,475	24,666	5,781	13,706	1,554	4,255	92,481
1971-72	32,310	11,795	19,267	6,014	13,867	1,299	4,119	88,671
1970-71	33,737	12,690	15,665	6,086	13,457	1,220	4,452	87,307
1969-70	33,979	12,025	14,671	5,983	10,836	1,278	4,901	83,673
1968-69	32,383	11,498	13,183	5,083	9,077	1,262	4,472	76,958

(a) Inter-system traffic is included in the total for each system (including each Commonwealth railway) over which it passes. (b) Includes sand and gravel. (c) Cement included with 'All other commodities'. (d) Includes cement.

Freight net tonne-kilometres

GOVERNMENT RAILWAYS: FREIGHT NET TONNE-KILOMETRES, SYSTEMS
(Million)

Commodity and year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
1972-73—								
Wheat	834.6	505.3	(a)	85.0	563.3	..	..	n.a.
Other agricultural produce	583.1	272.3	(a)	45.3	126.1	3.9	38.1	n.a.
Coal, coke and briquettes	836.6	194.4	(a)	4.3	13.7	19.9	401.3	n.a.
Other minerals(b)	784.1	70.3	(a)	374.3	1,801.0	2.8	242.3	n.a.
Wool	59.8	34.2	(a)	7.7	46.8	0.8	9.2	n.a.
Fertilisers and manure	37.9	219.9	(a)	133.1	181.8	27.8	8.2	n.a.
Cement	277.5	102.5	(a)	21.9	(a)	27.8	24.5	n.a.
Timber	161.4	95.5	(a)	31.4	92.6	28.8	82.9	n.a.
Livestock	165.3	76.7	280.8	37.9	20.8	3.4	55.0	639.9
All other commodities	4,377.4	1,593.5	7,332.2	847.5	840.2	95.5	1,339.8	16,426.1
Total	8,117.6	3,164.8	7,613.1	1,588.4	3,686.2	210.6	2,201.1	26,581.7
1971-72	8,615.2	3,264.2	6,315.1	1,583.0	3,447.8	169.7	2,007.9	25,402.9
1970-71	9,055.9	3,464.5	5,423.0	1,613.8	3,397.9	154.0	2,096.5	25,205.6
1969-70	8,804.4	3,331.2	5,085.8	1,549.5	2,860.1	195.4	2,146.2	23,972.6
1968-69	8,081.8	3,111.8	4,280.1	1,314.2	2,495.0	191.6	1,988.9	21,463.4

(a) Not available separately, included with 'All other commodities'. (b) Includes sand and gravel.

Finance

GOVERNMENT RAILWAYS: GROSS EARNINGS(a), SYSTEMS, 1972-73
(\$'000)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Cwlth</i>	<i>Aust.</i>
Coaching—								
Suburban passenger	45,880	27,167	3,813	2,285	1,688	72	..	80,905
Country passenger	20,383	8,738	4,121	2,026	2,128	156	3,779	41,331
Other	9,517	4,603	2,776	962	1,590	223	554	20,225
<i>Total coaching</i>	<i>75,780</i>	<i>40,508</i>	<i>10,710</i>	<i>5,273</i>	<i>5,406</i>	<i>451</i>	<i>4,333</i>	<i>142,461</i>
Freight (goods and live-stock)—								
Wheat	(c)	10,107	2,936	2,419	9,865	..	..	n.a.
Other agricultural produce	(c)	4,894	14,958	946	2,342	122	331	n.a.
Coal, coke and briquettes	(c)	3,999	43,715	59	484	374	1,817	n.a.
Other minerals(d)	(c)	1,175	11,877	7,047	16,321	68	2,516	n.a.
Wool	(c)	1,203	691	137	1,702	28	78	n.a.
Fertilisers and manure	(c)	3,873	1,556	1,475	2,905	832	46	n.a.
Cement	(c)	3,238	2,163	346	(e)	967	361	n.a.
Timber	(c)	2,263	1,850	424	2,033	887	506	n.a.
Livestock	(c)	1,364	7,893	1,063	499	93	651	n.a.
All other commodities	(c)	29,912	36,328	12,034	(f)17,863	2,684	18,370	n.a.
<i>Total freight</i>	<i>(b)161,315</i>	<i>62,029</i>	<i>123,966</i>	<i>25,949</i>	<i>54,017</i>	<i>6,055</i>	<i>24,675</i>	<i>458,006</i>
Miscellaneous	(b)16,974	9,296	3,069	3,863	4,177	329	2,233	39,941
Grand total	(b)254,070	111,833	137,745	35,085	63,600	6,835	31,241	640,409

(a) Excludes Government grants. (b) Includes State Co-ordination Tax Contribution. (c) Not available separately.
 (d) Includes sand and gravel. (e) Cement included with 'All other commodities'. (f) Includes cement.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1972-73
(\$'000)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.(a)</i>	<i>Cwlth</i>	<i>Aust.</i>
Maintenance of way and works	51,433	31,605	37,024	(a)13,961	(a)15,738	2,523	7,793	160,077
Motive power(b)	95,967	39,330	49,472	(a)16,783	(a)25,758	4,047	9,858	241,215
Traffic	76,566	48,918	37,644	(a)15,170	17,003	3,516	6,972	205,789
Other charges	74,214	36,266	9,244	6,406	9,723	1,742	9,864	147,459
Total	298,180	156,120	133,384	(a)52,320	(a)68,223	11,829	(a)34,487	754,543

(a) Includes provision of reserves for depreciation. (b) Includes maintenance of rolling stock.

GOVERNMENT RAILWAYS: GROSS EARNINGS, WORKING EXPENSES, AND NET EARNINGS, SYSTEMS

(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
GROSS EARNINGS								
1968-69	228,560	100,502	102,452	30,300	49,364	6,947	25,371	543,496
1969-70	247,288	105,045	108,831	33,340	56,044	6,920	27,649	585,116
1970-71	251,899	108,646	110,165	34,399	60,671	5,805	28,979	600,564
1971-72	266,268	112,685	124,782	35,386	63,634	6,123	29,208	638,086
1972-73	254,070	111,833	137,745	35,085	63,600	6,835	31,241	640,408

WORKING EXPENSES

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
WORKING EXPENSES								
				(a)	(a)	(a)	(a)	
1968-69	205,164	111,216	91,427	36,154	49,947	9,089	24,614	527,611
1969-70	217,660	118,558	96,530	39,040	54,992	9,031	27,156	562,967
1970-71	242,842	129,054	105,155	42,714	59,652	9,891	29,382	618,690
1971-72	263,484	138,722	119,743	46,521	63,748	10,391	31,540	674,149
1972-73	298,180	156,120	133,384	52,320	68,223	11,829	34,487	754,543

NET EARNINGS(b)

1968-69	23,396	-10,714	11,025	-5,854	-583	-2,142	757	15,885
1969-70	29,628	-13,513	12,301	-5,699	1,051	-2,111	493	22,150
1970-71	9,057	-20,408	5,010	-8,315	1,019	-4,086	-403	-18,126
1971-72	2,784	-26,036	5,038	-11,135	-115	-4,267	-2,333	-36,063
1972-73	-44,111	-44,287	4,361	-17,236	-4,622	-4,994	-3,247	-114,135

(a) Includes provision of reserves for depreciation. (b) Excess of gross earnings over working expenses as shown in this table.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT, SYSTEMS, 30 JUNE 1973

(\$'000)

System	Net earnings—excess of gross earnings over working expenses			Plus grants and other earnings payable to railways				Less other expenses charged to railways				Surplus (+) or deficit (-)
	State government grants	Road motor earnings	Other	Total	Interest and exchange	Sinking fund	Road motor expenses (a)	Other	Total			
New South Wales	-44,111	(b)4,722	..	4,722	31,451	7,367	..	(c)1,427	40,246	-79,634		
Victoria	-44,287	(d)24	74	97	10,086	419	207	..	10,713	-54,902		
Queensland	4,361	..	..	..	34,089	(e)52	..	(f)2,200	36,341	-31,979
South Australia	-17,236	(h)22,500	247	22,747	7,627	..	305	(i)964	8,895	-3,384		
Western Australia	-4,622	..	1,192	1,192	11,969	..	1,658	..	13,627	-17,057		
Tasmania	-4,994	..	..	7	2,133	..	..	..	2,133	-7,120
Commonwealth	-3,247	..	..	..	..	..	..	..	..	-3,247
Australia	-114,135	27,246	1,513	7	28,766	97,355	7,838	2,170	4,591	111,954-197,323		

(a) Includes interest and exchange. (b) Grants to meet losses on country developmental lines, and to subsidise payments due to superannuation account. (c) Loan management and loan flotation expenses. (d) Kerang-Koondrook tramway recoup from Treasury. (e) Queensland 1435 mm gauge system only. (f) Demolished assets written off. (g) Includes deficit (\$1,069,037) on the Queensland 1435 mm gauge system. (h) Grants towards deficiency. (i) Interest and repayment under Railway Standardisation and Railway Equipment Agreements. (j) Miscellaneous goods revenue from rail-ferry service traffic not carried by rail.

Employment, salaries and wages

GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES (EXCLUDING CONSTRUCTION STAFF) AND SALARIES AND WAGES PAID^(a), 1972-73

	N.S.W.	Vic.(b)	Qld	S.A.	W.A.	Tas.	Cwth	Aust.
Salaried staff	9,287	5,303	4,043	1,775	2,172	410	726	23,716
Wages staff	33,696	20,495	18,562	6,763	7,542	1,634	3,214	91,906
Total staff	42,983	25,798	22,605	8,538	9,714	2,044	3,940	115,622
SALARIES AND WAGES PAID								
paid S'000	220,103	124,415	107,706	41,097	45,790	9,197	19,040	567,347

(a) Excludes salaries and wages paid to road motor staff. (b) Includes construction staff.

Private railways

Private railways are operated over a range of gauges and are to be found in each State of Australia. These systems service agricultural areas, mining ventures, industrial complexes and ports. A range of commodities are carried, including coal, iron ore, other minerals and manufactured products. In recent years there has been considerable growth in the total route length of private railways, from an estimated 483 route-kilometres in 1965, to approximately 1,740 by December 1972. The construction of 1,104 kilometres of heavy duty railway for north-west Western Australia iron ore projects accounts for much of the increase.

In addition to the above, there are approximately 3,218 route-kilometres of permanent privately-owned sugar cane railways or 'tramways' along the north-east coast of Australia. The bulk of this is 610 mm gauge. Additional temporary lines are laid during the cane harvesting season. These lines connect 30 sugar mills to the Queensland Government Railway system. Other private railways exist within factory and industrial areas for the internal transport of goods and materials but at present no statistics are available as to the length involved and traffic task performed.

The carriage of passengers by private railways is now negligible; however, tonnages of freight carried are increasing as indicated in the following table.

PRIVATE RAILWAYS: ESTIMATED DOMESTIC FREIGHT TRAFFIC TASK^(a)

(Source: Department of Transport)

Year	Tonnes carried	Private as a percentage of	
		total tonnes carried ^(b)	total tonne-kilometres performed ^(b)
	'000	per cent	million per cent
1965-66	31,244	32.3	698 3.7
1966-67	36,469	34.4	1,864 9.0
1967-68	43,965	37.8	3,281 14.1
1968-69	53,386	41.0	5,469 20.3
1969-70	66,640	44.3	9,338 28.0
1970-71	79,988	47.8	13,778 35.3
1971-72	86,873	49.4	16,634 39.5
1972-73	111,292	54.6	20,036 43.0

(a) Includes tonnes and tonne-kilometres performed by sugar tramways, but excludes internal industrial plant railways. (b) Total equals government plus private.

During the period 1965-66 to 1971-72 tonnages of freight carried increased by 178 per cent. During the same period freight tonne-kilometres performed increased almost twenty-four fold. The extent of this growth has been such as to increase the private railway system's share of the total freight traffic task performed by all railways in Australia.

Mineral ores and concentrates are the predominant items of freight and, in contrast to the Government railways, carriage of general merchandise is of minor importance. The rapid growth of tonnes carried and tonne-kilometres performed since 1965-66 reflects the growing traffic task performed by the Western Australia iron ore railways. In 1971-72 these railways alone carried 55 per cent of the total tonnage carried by all private railways, and accounted for 95 per cent of the tonne-kilometres performed.

Details of location, ownership and operation of the major private railway systems were given in Year Book No. 56, 1970, page 364.

TRAMWAY, TROLLEY-BUS, BUS, AND FERRY SERVICES

Systems in operation

Tramway and trolley-bus. At 30 June 1973 tramway services were in operation in Melbourne, Victoria, and in Adelaide, South Australia. The last of the trolley-bus services ceased to operate in Australia with their replacement by buses in Perth, Western Australia, on 29 August 1969. Tramway services ceased to operate in Ballarat on 19 September 1971 and in Bendigo on 16 April 1972.

In many parts of Australia private lines used for special purposes in connection with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tramways used for the conveyance of passengers, which are dealt with in this section. For further details, see page 374.

Motor bus. Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal bus services located in all State capital cities: Canberra, Australian Capital Territory; Newcastle, New South Wales; Rockhampton, Queensland; Fremantle and the Eastern Goldfields area, Western Australia; Launceston and Burnie, Tasmania; Darwin, Northern Territory; and for country road services operated by the Western Australian Government Railways. Particulars of motor bus services under the control of private operators for the States of Victoria, Queensland, South Australia and Western Australia are given in the annual bulletin *Transport and Communication* up to 1971-72.

Ferry. Ferry passenger services are operated in the following States: New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Mersey River at Devonport. Control is exercised by both government authorities and private operators. Particulars of the operations of these services are given in previous issues of this Year Book and in the annual bulletin *Transport and Communication*. In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

Government and municipal tramway, trolley-bus and bus services

Because of the development in recent years of the various forms of public road transport under the control of single authorities, and the gradual replacement of tramway and trolley-bus services by motor bus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations.

TRAMWAY AND BUS SERVICES: GOVERNMENT AND MUNICIPAL STATES AND TERRITORIES, 1972-73

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-kilometres at 30 June—									
Tram(a) . . . kilometres		217		11					229
Bus . . . " "	998	232	647	267	7,916	402	156	272	10,890
Vehicle-kilometres—									
Tram . . . '000		24,443		676					25,119
Bus . . . " "	67,024	11,882	20,809	16,794	40,023	8,382	1,179	6,774	172,866
Rolling stock at 30 June—									
Tram . . . number		708		26					734
Bus . . . " "	1,850	272	602	376	855	283	28	176	4,442
Passenger-journeys—									
Tram . . . '000		104,719		1,614					106,333
Bus . . . " "	200,505	20,993	60,454	40,067	59,848	18,728	1,166	8,379	410,139
Gross revenue(b)—									
Tram and bus . . .	38,444	24,160	10,973	7,304	9,767	2,659	309	1,555	95,171
Working expenses(c)—									
Tram and bus . . . \$'000	50,295	27,115	10,736	8,269	14,043	4,191	523	2,425	117,598
Net revenue—									
Tram and bus . . . \$'000	-11,851	-2,955	236	-965	-4,276	-1,532	-214	-870	-22,426
Employees at 30 June—									
Tram and bus . . . number	7,304	4,283	1,583	1,121	2,030	606	49	280	17,256
Accidents—									
Tram and bus(d)—									
Persons killed . . . number	8	13	4		5				30
Persons injured . . . " "	1,382	593	155	148	383	43	1	27	2,732

(a) Gauge 1435 mm throughout. (b) Excludes government grants. (c) Includes provision of reserves for depreciation, etc., where possible. (d) Excludes accidents to employees.

Minus sign (-) denotes deficit.

TRAMWAY, TROLLEY-BUS AND BUS SERVICES: GOVERNMENT AND MUNICIPAL AUSTRALIA

	1968-69	1969-70	1970-71	1971-72	1972-73
Route-kilometres at 30 June—					
Tram kilometres	262	262	262	225	229
Trolley-bus „	14	..	..	..	..
Bus „	10,239	11,584	10,609	10,495	10,890
Vehicle kilometres—					
Tram '000	32,248	26,541	25,806	25,180	25,119
Trolley-bus „	1,638	106	..	..	..
Bus „	164,232	175,322	177,049	170,769	172,866
Rolling stock at 30 June—					
Tram number	771	780	784	722	734
Trolley-bus „	50	..	..	..	..
Bus „	4,210	4,345	4,469	4,437	4,442
Passenger-journeys—					
Tram '000	149,055	115,297	112,974	104,558	106,333
Trolley-bus and bus „	441,036	459,859	447,646	398,421	410,139
Gross revenue(a)—					
Tram, trolley-bus and bus \$'000	79,288	80,542	82,510	91,015	95,171
Working expenses(b)—					
Tram, trolley-bus and bus \$'000	84,649	85,929	96,507	103,274	117,598
Net revenue—					
Tram, trolley-bus and bus \$'000	—5,361	—5,387	—13,997	—12,260	—22,426
Employees at 30 June—					
Tram, trolley-bus and bus number	17,840	17,781	17,776	17,545	17,256
Accidents—					
Tram, trolley-bus and bus(c)—					
Persons killed number	27	33	21	22	30
Persons injured „	2,328	2,416	2,459	2,275	2,732

(a) Excludes government grants. (b) Includes provision of reserves for depreciation etc. where possible.
(c) Excludes accidents to employees.

Minus sign (-) denotes deficit.

MOTOR VEHICLES

The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. Particulars of registration, licences, fees payable, etc., in each State and Territory at 30 June 1972 are shown in *Transport and Communication*, Bulletin No. 63, 1971-72.

Tables in this section include vehicles owned by private individuals, local government authorities, State Governments, and the Australian Government (excluding those belonging to the defence services).

Survey of motor vehicle usage

A survey was conducted throughout Australia in late 1971 by the Australian Bureau of Statistics for the purpose of gathering information on the usage of motor vehicles. This survey was similar to one carried out in 1963. The owners of approximately 51,000 vehicles other than buses were approached for information relating to the usage of their vehicles over the twelve months ended 30 September 1971. In addition, usage details of 800 bus fleets were sampled and collected for the twelve months ended 30 June 1971. The framework, from which the sample was drawn, was obtained from the motor vehicle registration authorities in all States and Territories. The survey was based on respondents' recollections of their usage of the selected vehicles/fleets over their period of ownership during the survey year.

The main purpose of the survey was to determine the total distance travelled by vehicles, classified according to area and purpose of travel. Information was also obtained from the survey on: (i) tonne-kilometres; (ii) average load carried; (iii) vehicle usage (i.e. for hire and reward, ancillary or other); (iv) fuel consumption; (v) road surface; (vi) occupant-kilometres; (vii) driver characteristics.

The following table shows, for Australia, total annual kilometres travelled for the twelve months ended 30 September 1971 according to area and purpose of travel. The percentage standard errors (S.E. %) indicate the extent to which the estimates can vary by chance because only a sample and not

the total vehicle population was enumerated. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained from a comparable complete enumeration, and about nineteen chances in twenty that the difference will be less than two standard errors. For example, if an estimate of 3,000 million kilometres has a standard error of 5 per cent (i.e. 150 million kilometres), then there would be approximately two chances in three that a comparable complete collection would give a figure within the range of 2,850 million kilometres to 3,150 million kilometres, and about nineteen chances in twenty that the figure would be within the range of 2,700 million kilometres to 3,300 million kilometres.

TOTAL ANNUAL KILOMETRES TRAVELLED(a) BY PURPOSE AND AREA OF OPERATION, AUSTRALIA, TWELVE MONTHS ENDED 30 SEPTEMBER 1971

Area of operation kilometres	Laden business		Unladen business		Total business(b)		Paid to and from work(c)		Unpaid to and from work		Private		Total	
	million kilometres	S.E. %	million kilometres	S.E. %	million kilometres	S.E. %	million kilometres	S.E. %	million kilometres	S.E. %	million kilometres	S.E. %	million kilometres	S.E. %
Capital city and environs	3,566.3	1.7	1,804.7	2.1	12,609.2	2.5	2,396.0	5.5	9,566.1	2.8	18,022.6	1.9	42,594.2	1.3
Provincial urban(d)	512.1	4.5	318.8	6.3	1,732.3	8.7	250.7	14.6	1,313.2	7.8	3,234.0	4.3	6,530.4	4.0
Other areas of State or Territory	3,470.6	1.6	2,600.4	1.8	10,523.0	2.3	685.3	12.3	2,849.7	4.9	14,083.0	2.1	28,141.2	1.6
Other States and Territories(e)	396.9	3.6	126.7	5.1	877.4	7.3	48.4	25.7	213.7	15.0	2,095.0	5.0	3,234.6	4.1
Total	7,945.8	1.0	4,850.4	1.3	25,742.1	1.7	3,380.4	5.0	13,942.7	2.3	37,435.1	1.2	80,501.2	0.8

(a) Excludes kilometres travelled by buses. (b) Includes the total kilometres travelled of cars, station wagons and motor cycles for business purposes. The dissection of business travel into laden/unladen for these vehicles was not sought. (c) For the purpose of this survey 'Paid to and from work' travel is not considered to be business travel. (d) Includes centres (other than capital cities) having populations greater than 40,000 at the 1966 Census of Population and Housing. (e) Covers kilometres travelled by vehicles in all States other than that in which the vehicle was registered.

Motor vehicles on register

Details of motor vehicles on the register are compiled by up-dating motor vehicle census data from information made available by the various motor vehicle registration authorities in the States and Territories. Censuses of motor vehicles have been conducted in respect of 31 December 1955, 31 December 1962 and 30 September 1971. At these census dates considerably greater information concerning the particulars shown in the tables following is available. Final detailed results of the 1971 census have been published in separate census bulletins for each State and Territory and for Australia.

A revised classification of motor vehicles has been adopted for publication of statistics of motor vehicle registrations from 1 January 1972. The principal differences between this classification and that which it replaces involve the categories light commercial type vehicles, trucks and other truck type vehicles. Consequently, figures shown from January 1972 for these categories are not strictly comparable with data for previous periods.

MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE, 31 DECEMBER 1973 ('000)

State or territory	Motor cars	Station wagons	Light commercial type vehicles		Trucks (carrying capacity 1 tonne and over)		Other truck type vehicles	Buses	Motor cycles	Total
			open	closed	rigid	articulated				
New South Wales	1,305.7	260.6	134.0	56.8	143.0	13.0	3.5	8.6	78.3	2,003.5
Victoria	1,054.9	213.0	93.4	53.3	87.2	10.5	4.3	6.0	44.7	1,567.4
Queensland	500.3	129.1	84.5	25.8	76.4	5.3	1.0	3.5	50.5	876.3
South Australia	378.8	66.6	35.8	11.1	42.3	3.5	2.3	2.9	29.2	572.4
Western Australia	308.8	68.3	43.4	18.3	44.1	2.6	1.8	2.8	20.0	510.0
Tasmania	119.6	20.6	14.0	5.1	12.8	1.0	0.1	1.4	5.3	180.0
Northern Territory	14.8	6.1	4.6	1.4	5.8	0.4	0.1	0.3	3.2	36.7
Australian Capital Territory	61.3	11.8	3.9	2.5	3.4	0.2	0.1	0.5	4.4	87.9
Total	3,744.1	776.1	413.7	174.2	415.0	36.4	13.0	26.0	235.5	5,834.1

**MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE
AUSTRALIA
(*000)**

31 December	Motor cars and station wagons	Light commercial type vehicles, other truck type vehicles and buses	Motor cycles	Total vehicles
1969	3,619.9	929.9	106.1	4,655.9
1970	3,834.0	949.0	127.7	4,910.7
1971	4,057.5	982.4	164.8	5,204.9
1972	4,259.8	1,020.5	193.4	5,474.0
1973	4,520.2	1,078.3	235.5	5,834.1

**MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION
STATES AND TERRITORIES**

31 December	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1969	359.0	374.1	377.5	407.3	407.6	391.2	319.3	395.9	375.3
1970	371.3	387.5	390.7	418.8	417.3	404.8	321.3	415.0	387.8
1971	390.7	398.5	406.1	430.5	432.4	420.1	347.6	436.3	403.2
1972	403.3	411.4	426.4	448.0	449.2	433.8	359.7	471.8	418.1
1973	422.8	433.5	450.2	472.6	470.3	451.0	374.1	501.1	439.7

(a) Excludes tractors, plant and equipment.

Registrations of new motor vehicles

Particulars of registrations of new motor vehicles are shown by type, make, and horsepower of vehicle in monthly, quarterly and annual bulletins of Motor Vehicle Registrations.

In these statistics 'registrations' means registrations processed by the motor vehicle registration authorities in the States and Territories during the period.

A revised classification of motor vehicles has been adopted for publication of statistics of new motor vehicle registrations from 1 January 1972. The principal differences between this classification and that which it replaces involve the categories light commercial type vehicles, trucks and other truck type vehicles. Consequently, figures shown from January 1972 for these categories are not strictly comparable with data for previous periods.

REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE

State or Territory and year	Motor cars	Station wagons	Light commercial type vehicles		Trucks (carrying capacity 1 tonne and over)		Other truck type vehicles	Buses	Total (excludes motor cycles)	Motor cycles
			open	closed	rigid	articu- lated				
1973—										
New South Wales	151,512	20,225	13,984	13,050	10,516	1,238	119	936	211,580	28,843
Victoria	103,876	15,043	8,496	6,856	6,430	1,104	130	560	142,495	12,342
Queensland	53,583	8,980	9,491	4,177	6,263	562	15	218	83,289	14,986
South Australia	38,333	4,888	3,667	1,695	2,518	432	81	251	51,865	10,877
Western Australia	34,124	5,788	5,167	3,504	3,399	285	13	231	52,511	6,003
Tasmania	12,269	1,396	1,117	706	876	171	12	114	16,661	1,863
Northern Territory	1,553	555	672	247	821	61	1	44	3,954	1,303
Australian Capital Territory	6,873	927	524	644	419	25	4	87	9,503	1,005
Australia	402,123	57,802	43,118	30,879	31,242	3,878	375	2,441	571,858	77,222
1972	353,924	51,928	38,545	23,492	26,869	2,913	340	2,047	500,058	54,641
1971	362,669	54,555	33,822	22,908	26,900	(a)	1,263	2,394	504,511	48,786
1970	358,181	54,880	35,881	19,701	29,476	(a)	1,289	2,190	501,598	32,701
1969	343,275	57,604	36,510	17,621	29,700	(a)	1,407	2,041	488,158	25,386

(a) Not directly comparable with figures subsequent to 1971.

Drivers' and riders' licences

At 30 June 1973 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 2,280,927; Victoria, 1,711,808; South Australia, 581,765; Western Australia, 513,035; Tasmania, 181,096; Northern Territory, 50,020; Australian Capital Territory, 121,245. Particulars are not available for Queensland.

ROAD TRAFFIC ACCIDENTS**Compulsory fitting and use of seat belts and protective helmets in Australia**

Through the endorsement of the Australian Transport Advisory Council of Australian Design Rules for Motor Vehicle Safety, the fitting of belts in passenger cars and derivatives in each State was made mandatory for new motor vehicles from 1 January 1970 for front seats and from 1 January 1971 for all positions.

The year 1973 saw the completion of laws requiring the compulsory wearing of seat belts, where fitted, in all motor vehicles, and the mandatory use of protective helmets by motor cycle riders and pillion passengers. The dates on which the laws came into effect were as follows:

	<i>Seat belts</i>	<i>Protective helmets</i>
New South Wales	1 October 1971	1 August 1971
Victoria	22 December 1970	1 January 1961
Queensland	1 January 1972	24 October 1970
South Australia	29 November 1971	31 December 1967
Western Australia	24 December 1971	1 May 1971
Tasmania	13 October 1971	19 December 1966
Northern Territory	1 January 1972	8 November 1972
Australian Capital Territory	1 January 1972	18 March 1973

The laws in force differ between States and Territories on matters such as exemptions and penalties. The exemptions for seat belts relate primarily to delivery men, persons reversing motor vehicles, the elderly, children under the age of 8 years, and persons exempted by a doctor's certificate. There are some minor exemptions for motorcyclists including persons exempted for medical reasons; passengers carried in sidecars in New South Wales, Victoria, South Australia, and Tasmania, persons exempted for religious reasons in New South Wales, and motorcyclists travelling at less than 24 kilometres per hour in South Australia.

The vast majority of belts fitted to vehicles are of the lap-sash type. Recent developments in seat belt design are aimed to improve their comfort to the wearer, their ease of adjustment and their effectiveness.

Accidents involving casualties, persons killed, persons injured**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED, 1972**

<i>State or territory</i>	<i>Number of accidents</i>	<i>Persons killed</i>	<i>Persons injured</i>	<i>Per 100,000 of mean population</i>			<i>Per 10,000 motor vehicles registered(b)</i>		
				<i>Number of accidents</i>	<i>Persons killed</i>	<i>Persons injured</i>	<i>Number of accidents</i>	<i>Persons killed</i>	<i>Persons injured</i>
New South Wales	27,365	1,092	36,814	586	23	788	147	6	198
Victoria	14,757	915	20,646	415	26	580	102	6	143
Queensland	7,863	572	10,788	420	31	576	101	7	138
South Australia	8,116	312	10,997	682	26	925	155	6	210
Western Australia	4,909	340	6,751	465	32	639	105	7	145
Tasmania	1,371	106	1,968	349	27	501	82	6	117
Northern Territory	592	53	795	646	58	868	183	16	246
Australian Capital Territory	777	32	1,007	494	20	641	109	5	141
Australia	65,750	3,422	89,766	506	26	691	123	6	168

(a) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (b) Average number of motor vehicles (excluding tractors plant and equipment) on register.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total		
									Number	Per 100,000 of mean population	Per 10,000 motor vehicles registered(b)
Accidents involving casualties—											
1968	22,774	15,377	7,118	6,421	4,708	1,240	357	764	58,759	489	137
1969	24,164	16,527	7,494	6,895	4,809	1,416	500	792	62,597	510	138
1970	25,434	16,435	7,869	7,424	5,218	1,425	528	877	65,210	521	136
1971	26,575	15,023	8,147	7,386	5,178	1,385	660	856	65,210	510	129
1972	27,365	14,757	7,863	8,116	4,909	1,371	592	777	65,750	506	123
Persons killed—											
1968	1,211	949	477	275	320	118	18	14	3,382	28	8
1969	1,188	1,011	556	251	311	114	45	26	3,502	29	8
1970	1,309	1,061	537	349	351	118	42	31	3,798	30	8
1971	1,249	923	594	292	332	130	50	20	3,590	28	7
1972	1,092	915	572	312	340	106	53	32	3,422	26	6
Persons injured—											
1968	30,919	22,095	10,151	8,902	6,553	1,928	512	1,150	82,210	684	192
1969	32,752	23,797	10,406	9,961	6,788	2,264	727	1,169	87,864	716	194
1970	34,886	23,737	10,940	10,484	7,373	2,171	714	1,249	91,554	731	191
1971	36,660	21,371	11,387	10,132	7,328	2,056	926	1,176	91,036	712	180
1972	36,814	20,646	10,788	10,997	6,751	1,968	795	1,007	89,766	691	168

(a) See footnote (a) to previous table. (b) See footnote (b) to previous table.

Types of road user killed or injured

Responsibility for cause of accident is not indicated by this classification.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED, TYPES OF ROAD USER INVOLVED, 1972

Type of road user	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS KILLED									
Drivers of motor vehicles	370	324	217	120	129	35	28	11	1,234
Motor cyclists	98	59	55	28	17	9	5	6	277
Pedal cyclists	18	31	18	12	4	4	..	2	89
Passengers (all types)(b)	349	285	182	88	108	29	15	9	1,065
Pedestrians	256	216	98	64	77	28	5	4	748
Other classes(c)	1	..	2	..	5	1	..	..	9
Total	1,092	915	572	312	340	106	53	32	3,422
PERSONS INJURED									
Drivers of motor vehicles	14,392	7,992	3,983	4,267	2,780	776	262	368	34,820
Motor cyclists	4,292	1,430	1,173	1,313	541	131	155	178	9,213
Pedal cyclists	774	825	408	524	226	36	17	37	2,847
Passengers (all types)(b)	12,728	7,974	4,198	3,998	2,506	815	295	336	32,850
Pedestrians	4,586	2,405	1,017	885	680	210	65	86	9,934
Other classes(c)	42	20	9	10	18	..	1	2	102
Total	36,814	20,646	10,788	10,997	6,751	1,968	795	1,007	89,766

(a) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (b) Includes pillion riders. (c) Includes bystanders, tram-drivers, riders of horses and drivers of animal-drawn vehicles.

Age groups of persons killed or injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED BY AGE GROUP, 1972

Age group (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS KILLED									
Under 5	40	34	26	19	18	2	..	1	140
5 and under	21	14	9	6	6	2	1	..	59
7 17	84	82	53	34	33	15	6	5	312
17 21	210	173	124	66	61	23	9	10	676
21 30	229	193	112	55	89	25	13	9	725
30 40	98	92	60	20	30	7	8	2	317
40 50	102	88	49	35	36	5	13	2	330
50 60	102	80	55	29	21	7	2	1	297
60 and over	205	147	84	48	45	20	1	2	552
Not stated	1	12	..	..	1	..	..	..	14
Total	1,092	915	572	312	340	106	53	32	3,422
PERSONS INJURED									
Under 5	1,112	830	351	350	257	67	42	37	3,046
5 and under	652	429	177	159	117	28	14	16	1,592
7 17	3,967	2,494	1,383	1,467	724	325	63	122	10,545
17 21	8,380	4,355	2,583	2,535	1,460	515	137	279	20,244
21 30	9,091	4,939	2,464	2,006	1,453	371	289	279	20,892
30 40	4,217	2,279	1,100	962	681	184	111	92	9,626
40 50	3,561	1,944	867	844	563	139	70	75	8,063
50 60	2,788	1,520	808	684	436	126	34	51	6,447
60 and over	2,579	1,487	813	593	451	102	12	44	6,081
Not stated	467	369	242	1,397	609	111	23	12	3,230
Total	36,814	20,646	10,788	10,997	6,751	1,968	795	1,007	89,766

(a) See footnote (a) to previous table.

Types of accidents

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a)
NUMBER OF ACCIDENTS AND PERSONS KILLED OR INJURED, BY TYPE OF ACCIDENT, 1972

<i>Type of accident</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
NUMBER OF ACCIDENTS									
Collisions between vehicles	15,632	8,277	3,867	4,788	2,639	659	244	442	36,548
Vehicle overturning or leaving road	3,524	1,143	2,468	1,336	1,320	415	184	192	10,582
Vehicle colliding with pedestrian	4,568	2,402	1,041	905	730	231	67	85	10,029
Vehicle colliding with fixed object (b)	3,262	2,677	340	979	144	54	79	47	7,582
Passenger accidents	154	94	39	42	25	5	5	7	371
Vehicle colliding with animal	223	92	90	52	33	3	6	4	503
Other	2	72	18	14	18	4	7	..	135
Total	27,365	14,757	7,863	8,116	4,909	1,371	592	777	65,750
PERSONS KILLED									
Collisions between vehicles	468	397	245	134	105	34	8	16	1,407
Vehicle overturning or leaving road	161	101	195	65	144	39	26	10	741
Vehicle colliding with pedestrian	255	209	99	65	74	28	5	4	739
Vehicle colliding with fixed object (b)	201	195	21	46	5	2	13	1	484
Passenger accidents	7	9	5	1	5	2	..	1	30
Vehicle colliding with animal	..	3	5	1	..	..	1	..	10
Other	..	1	2	..	7	1	..	..	11
Total	1,092	915	572	312	340	106	53	32	3,422
PERSONS INJURED									
Collisions between vehicles	22,369	12,661	5,822	6,767	3,967	1,042	348	609	53,585
Vehicle overturning or leaving road	4,892	1,662	3,364	1,927	1,806	636	254	243	14,784
Vehicle colliding with pedestrian	4,605	2,282	997	905	694	217	66	86	9,852
Vehicle colliding with fixed object (b)	4,506	3,770	436	1,276	195	64	108	58	10,413
Passenger accidents	174	89	38	44	23	3	6	6	383
Vehicle colliding with animal	266	106	104	61	50	3	5	5	600
Other	2	76	27	17	16	3	8	..	149
Total	36,814	20,646	10,788	10,997	6,751	1,968	795	1,007	89,766

(a) Accidents reported to the police which occurred in public thoroughfares and which resulted in death within thirty days or in bodily injury to an extent requiring surgical or medical treatment. (b) Includes parked vehicles.

ROADS

Summary of roads used for general traffic

Proclaimed or declared roads. The table following is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30 June 1973. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points: availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; the value of the roads as connecting links between centres of population or business; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g. insufficiency of funds, man-power or materials, etc., construction or maintenance may not keep pace with gazettal of roads, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS, STATES, 30 JUNE 1973
(Kilometres)

<i>Class of road</i>	<i>N.S.W.</i>	<i>Vic.(a)</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Total</i>
State highways . . .	10,567	(b)7,252	10,195	13,127	12,315	1,929	108,012
Trunk roads . . .	10,258	14,605	126				
Ordinary main roads . . .	18,462		8,111				
<i>Total main roads . . .</i>	<i>39,287</i>	<i>21,857</i>	<i>18,432</i>	<i>13,127</i>	<i>12,315</i>	<i>2,994</i>	<i>108,012</i>
Secondary roads . . .	(c)290	..	(d)13,773	..	8,716	308	23,087
Developmental roads . . .	3,894	..	7,617	..	..	144	11,655
Tourist roads . . .	396	805	..	..	..	75	1,276
Other roads . . .	..	(e)1,039	..	..	..	..	1,039
<i>Total other roads . . .</i>	<i>4,580</i>	<i>1,844</i>	<i>21,390</i>	<i>..</i>	<i>8,716</i>	<i>527</i>	<i>37,057</i>
Grand total . . .	43,867	23,701	39,822	13,127	21,031	3,521	145,069

(a) Includes only roads declared by the Country Roads Board. Does not include 13 kilometres of metropolitan freeways constructed by the Melbourne and Metropolitan Board of Works. (b) Includes 113 kilometres of freeways constructed by the Country Roads Board. (c) Metropolitan only. (d) Includes mining access roads, farmers' roads and tourist tracks. (e) Forest roads.

Total roads. The following table represents an attempt to classify all the roads open for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

ALL ROADS OPEN FOR GENERAL TRAFFIC
LENGTHS, STATES AND TERRITORIES, 30 JUNE 1973
(Kilometres)

<i>Surface of roads</i>	<i>N.S.W.(a)</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Total</i>
Bitumen or concrete . . .	60,675	54,763	37,182	17,090	29,667	6,467	4,545	1,283	211,672
Gravel, crushed stone or other improved surface . . .	65,407	46,272	29,792	21,385	30,520	13,229	1,711	385	208,701
Formed only . . .	39,876	31,097	63,526	24,494	43,793	883	4,208	42	443,627
Cleared only . . .	42,012	27,436	62,068	37,107	57,389				
Total . . .	207,970	159,568	192,568	100,076	161,369	20,579	20,160	1,710	864,000

(a) As at 30 June 1972.

On page 391 some road statistics are shown from a survey of roads conducted by the Commonwealth Bureau of Roads and the National Association of Australian State Road Authorities. The emphasis in that table is on a classification of roads by function. Because of differences in definitions, methods and reference served, the statistics are not directly comparable with those shown in the above table.

Further information on roads, including financial particulars, is included in Chapter 18. Public Authority Finance.

National Association of Australian State Road Authorities

The National Association of Australian State Road Authorities (N.A.A.S.R.A.) was established in 1934 under the title 'Conference of State Road Authorities of Australia', the present name being adopted in 1959. Initially the member authorities were the central road authority in each State but in 1949 this was extended to include the Australian Government Department of Housing and Construction. The present member authorities are: Department of Main Roads, New South Wales; Country Roads Board, Victoria; Main Roads Department, Queensland; Highways Department, South Australia; Main Roads Department, Western Australia; Department of Public Works, Tasmania; Australian Government Department of Housing and Construction.

These authorities are directly responsible for the construction and maintenance of the primary road system which comprises approximately 14 per cent of roads in Australia. The primary roads, generally termed 'main roads', include the principal routes between States, routes linking large cities and regions within the States and certain major arterial roads. The authorities also have a limited responsibility for some secondary roads serving primary and secondary industry, and tourist roads.

The Association's objectives are to provide a central organisation where, by co-operative effort, a uniform approach to the improvement, planning and development of the Australian road system can be achieved. This is done by gathering together experienced engineers and administrators from the member Authorities into a series of committees to develop national standards for road and bridge design, construction and maintenance and to improve methods of administration and financial control. The policies and standards published are widely used by local government authorities and by universities as standard textbooks for courses in road engineering. For structural design, road signs, manufactured items and standard laboratory test procedures it has been a long standing policy of the Association to participate with the Standards Association of Australia in the preparation of national codes of practice.

One item of continuing interest to the Association is road research and in 1959 the Association decided to establish and finance a separate national road research centre. This centre, the Australian Road Research Board (A.R.R.B.), was established in 1960 as a company controlled by a Board consisting of the N.A.A.S.R.A. members. The director and staff of A.R.R.B. regularly report to the N.A.A.S.R.A. executive and technical committees the results and progress of research undertaken for N.A.A.S.R.A. and the individual road authorities.

The Association also assists the Australian Government in a number of national and international projects. Within Australia direct grants are made for the construction of a number of roads and the Association has provided the basic data for the two Australian Roads Surveys. These surveys are conducted regularly in conjunction with the Commonwealth Bureau of Roads and form the basis for determining the Australian Government's policy on financial aid for roads. The Association also regularly confers with the Australian Government Department of Transport, the Commonwealth Bureau of Roads and Australian Transport Advisory Council on major roading policies. As part of the Australian Government's external aid program and in conjunction with the Department of Foreign Affairs, member authorities of the Association conduct engineering training courses for experienced engineers from African and Asian countries.

The secretarial services of the Association are provided by a small staff located in Sydney. This office maintains contact with overseas road bodies and acts as a centre for the receipt and circulation of standards published by these organisations.

Australian Road Research Board

The Australian Road Research Board was established by the road authorities of the Australian and State Governments in 1960 as a national centre for road research. The Board was incorporated in January 1965 as a public company limited by guarantee, memorandum and articles of association being drafted in general conformity with the constitution which had been accepted in 1960. The company members are the Australian Government, the commissioners of the central road authorities in New South Wales, Queensland, South Australia, and Western Australia, the Department of Public Works, Tasmania, and the Country Roads Board, Victoria. The Secretary of the Australian Department of Housing and Construction and the departmental heads of the other road authorities constitute the Board, which controls all policy and activities. Finance for all activities has been provided by the company members on an agreed basis.

The objectives of A.R.R.B. include planning an adequate program of research and development, arranging for individual projects to be carried out directly and by co-operating organisations, and providing conferences and publications to bring these and other advances to everyone interested in roads. Publications include *Proceedings* of biennial national research conferences commencing in 1962, the journal *Australian Road Research* issued a number of times a year, and separate reports and bulletins resulting from special research projects.

The following list of possible subjects indicates the range of studies provided for in the original constitution: road planning, location, design, safety, materials, construction, maintenance, structures, equipment, traffic and transport, economics, administration, financing, management, accounting, and any other matters affecting the provision, upkeep, use, protection, and development of roads. In planning a creative program the Board continues to look for those subjects which seem to offer the highest benefit to road engineers and the community.

The work on research projects is carried out either directly by the Board's own staff, in many cases acting in co-operation with the road authorities of the various governments, or through co-operative projects established with universities. The Board has endeavoured to provide or sustain the additional staff required for these external projects, but university staff members furnish advice and co-operation in all parts of these studies.

As with most research organisations, the Board has made very full use of systematic consultation through various advisory groups. Members of these groups have been recruited from persons with the ability to contribute, who were prepared to serve as individuals and not as representatives of particular organisations. In an attempt to secure completely unfettered counsel, most of the members of the advisory groups were drawn from outside the Board and its staff. The various committees include a general Advisory Council and several particular types of specialist committees. In addition, the technical committees of the National Association of Australian State Road Authorities have, with the initiation of A.R.R.B., been a continuing and valuable source of advice and consultation. In this way, therefore, exceedingly valuable advice has been obtained from individuals drawn from the State road authorities, local authorities, C.S.I.R.O., Australian universities, several Australian Government departments, and from private companies and consultants.

Commonwealth Bureau of Roads

The Commonwealth Bureau of Roads is a Statutory Authority established under the provisions of the *Commonwealth Bureau of Roads Act* 1964. The Bureau consists of a full-time Chairman and two part-time members appointed by the Governor-General and is served by a small secretariat. Broadly, the responsibilities of the Bureau are to advise the Australian Government, through the Minister for Transport, on matters relating to roads and road transport and government financial assistance in this area.

History of Roads in Australia*

Road travel plays a dominant role in life in Australia today even though it is continually being augmented by other means of travel and communication. Approximately 90 per cent of passenger travel and 20 per cent of freight transport is by road.†

By world standards Australia has an extensive network of roads (about 0.06 kilometres per capita in Australia compared with 0.03 kilometres per capita in both Canada and New Zealand) with a total of over 800,000 kilometres. These roads serve different functions ranging from major arterials (urban and rural) carrying heavy traffic movements, to property access roads (either residential streets or rural), the latter constituting about 85 per cent of the length of the national roadway. Almost three-quarters of the nation's road traffic (vehicle-kilometres) is carried on arterial and sub-arterial roads which together comprise only about 16 per cent of the total length of road.

Naturally enough, the development of this network reflects the response over many decades to a complex of economic, social, political and other considerations. As these demands have changed so has the concept of an acceptable road network altered. Cleared but generally undrained and unpaved tracks met the transport needs of the early settlers in New South Wales. Many kilometres of such rough bush tracks still survive (mainly in the inland areas), and about 80 per cent of the nation's road system is still unsealed, while over 50 per cent is natural earth-surface. However, most main roads have now been transformed into modern all weather roads suitable for fast and heavy motor vehicles.

* This note on the history of road development in Australia was prepared by the Commonwealth Bureau of Roads.

† Passenger travel is measured by the total distance travelled by persons by car, bus, tram, rail, air and sea. Freight transport is measured by the total distance each unit weight of freight is carried by all modes of transport.

The roads of the first settlers

There was little planning in the development of the early roads. When a need arose a road was built, often following the trails or tracks produced by drays and bullock teams. Thus, the first road built in the colony was a cleared track from Dawes Battery to Governor Phillip's residence, a distance of nearly two kilometres. When the Parramatta district was settled a road was built to it from Sydney, branching off the road to Dawes Battery. In 1792, roads were built linking the new settlement in the Windsor district with both Sydney and Parramatta. Even in Sydney the street system was not regulated—the town plan produced by the Surveyor-General in 1788 was rejected as too grandiose and no further attempt to produce a town plan was made until Governor Macquarie arrived.

The condition of the roads and streets deteriorated rapidly. In overseas countries, road construction methods improved road quality considerably in this period, but the new colony was not able to take advantage of these improvements owing to a lack of trained surveyors and road and bridge engineers in the colony. (Until 1833, no one in the colony had been capable of designing and building a stone arch bridge.) Therefore, the easiest routes had to be adopted, and roads followed the tracks of the explorers, which were not necessarily the shortest routes. Apart from a lack of equipment and tools, the topography of the country was not conducive to easy road building. The convicts were a source of unlimited free labour but were an unwilling work force and needed constant supervision. Therefore, early roads were simply cleared tracks with no drainage and little grading or surfacing, thus needing regular reconstruction.

The influence of Macquarie

A concerted attempt to improve the condition of the roads and to plan a road network was made by Governor Macquarie. When he arrived in 1810, there were no paved roads outside Sydney and no real streets in the town. The roads within Sydney were only straggling paths: crooked, muddy, rutted and full of stumps. Houses encroached on the roads and animals rummaged in the rubbish thrown onto them. However, Macquarie was determined to improve the condition of the roads. Within several months, toll roads from Sydney to the Hawkesbury River and to Parramatta had been opened and a plan 'for the ornament and regularity of the streets of Sydney'* partly executed. Macquarie planned for roads and bridges to precede settlement to avoid repeating the haphazard development which had characterised earlier road building.

Finance for the road construction and maintenance program was provided from Government funds, public subscription or tolls. The right to collect tolls was let to private operators who were called upon to construct roads and maintain them for ten years. To ensure that the condition of the major roads in the colony did improve, the administration specified a standard of construction and maintenance which the operators of the toll roads had to meet. The system appears to have worked successfully on the main roads and a profit of \$930 was made in 1815 from the tolls on the Sydney to Parramatta road.

Road conditions had improved greatly during Macquarie's term as Governor and when he left in 1822 the colony had a network of three major roads, with the Great Western Road from Sydney across the Blue Mountains to Bathurst being the most important. Order had been brought to Sydney streets with the adoption of a town plan, and the streets had been paved, named and signposted. Macquarie had been responsible for establishing the conditions for the road network to develop in a planned way. However, his successors as Governor were less concerned about the development of the network and road conditions deteriorated.

The impetus given to the growth of the country by the opening up of the Bathurst plains and the establishment of new colonies imposed strains on the road programs of the various administrations. They were not able to adequately maintain the existing roads or to construct new roads fast enough to keep up with the spreading of settlements. The situation worsened with the development of an acute labour shortage. This arose because of the attraction of the newly-discovered gold fields for workers and a decline in the transportation of convicts. As a result, road conditions deteriorated badly at a time when the growth of the wool and wheat industries made the need for improved roads to the interior of great importance. This problem was accentuated in times of low prices for wheat and wool when transport costs were crucial.

The pattern of road building in the other colonies had followed that set in New South Wales. However, except for Tasmania, the other colonies did not have a substantial pool of cheap convict labour for road works. Thus, the level of development of the road network in these colonies was generally lower than that in New South Wales.

* Clark, C. M. H.: *A History of Australia*; Vol. I, Melbourne University Press, Melbourne, 1962, page 269.

Although the capitals of each of the colonies had a town plan which determined the layout of the streets, the road network in country towns was generally planned by government surveyors as an adjunct to their work of dividing up the sheep properties. A legacy of that policy is the similarity of the design of many towns, as the methods adopted for each town were usually the same—a wide main street was surveyed with narrower roads at intervals running at right angles to the main street. For larger towns, other roads parallel to the main one were constructed, producing a grid pattern.

The establishment of road authorities

Even before gold was found the road construction programs had suffered from a shortage of funds as they had to rely on government budgets, loans, tolls and public subscription. For this reason the years from the 1830s saw the establishment of authorities primarily responsible for roads. This problem was exacerbated by the discovery of gold, one consequence of which was the rapid increase in population in New South Wales and Victoria which necessitated a large scale attack on the road problem. Legislation in New South Wales in the 1830s and 1840s had established road trusts in Sydney and Newcastle and local government organisations in other areas, with the power to impose tolls and with responsibility to construct and maintain local roads. They could levy rates but had no power to borrow funds (except by mortgaging future tolls and rates). Similar administrative structures existed during this period in other colonies.

The first centralised control of road construction in Australia came in South Australia, where the Central Board of Main Roads was established in 1849. In Victoria, there was centralised control of construction and maintenance from 1853 to 1863, through the Central Roads Board. This board expanded the network of toll roads but demanded larger licence fees from the companies collecting the tolls. These fees were redistributed to district boards for construction of community roads. Much was accomplished by the Board in clearing and paving roads, constructing bridges and in the maintenance of Victorian roads. However, viewed overall, the technical and financial task of road construction and maintenance on a large scale was beyond the capacities of these colonial road trusts.

The influence of the railways

Until the late 1860s, the effort directed at extending and upgrading the road network increased for several reasons. Roads catered for most travel and the road transport firm, Cobb & Co., was expanding and providing relatively cheap travel. Further, the easing of the gold rushes had lessened the demand for bullock teams, resulting in a fall in prices for this type of road transport.

The development of railways changed this situation. By 1880, most of the early difficulties suffered by the railways had been overcome and rail, faster and cheaper than road transport, became the dominant transport mode for the next fifty years. The first priority of transport authorities was to extend the rail network and then to provide low cost roads to link centres to the rail heads:

'the roads as main highways for traffic from Sydney have to a great extent been superseded by the railways, but for a large part of the Colony they are still the sole means of communication, and as feeders to the railway system they play a very important part'.*

With the dominance of travel by the railways, a relatively inflexible mode of transport, it had become necessary to plan the integration of the various modes. At this stage, however, the role of roads was seen as completely subservient to that of all rail transport, including trams in the cities.

Unlike Europe, Australia did not have an extensive network of good roads in existence when railways were introduced and roads became of minor importance as routes for heavy transport. Furthermore, by 1879 tolls on main roads had been abolished in all colonies, funds for road maintenance were granted irregularly and the cost of road transport did not continue to fall as it had in the aftermath of the gold rushes. Hence, standards of roads declined and the dominance of the railways was reinforced. Most country roads became simply deep wheel tracks, the development of arterial roads where they would parallel rail lines was slowed and the maintenance of roads already in existence was largely neglected. When a rail bridge was constructed over the Hawkesbury in 1889, the ferry across the river was stopped, thus closing the coastal road from Sydney to Newcastle until the ferry was reopened in 1930. A road bridge was not built until 1945.

One aspect of the dominance of railways which did assist the road network at this time was the upsurge in bridge building which accompanied the development of rail. As well as rail bridges many road bridges were built. In 1866 an iron bridge was built to connect north and south Brisbane; in 1868 a bridge was built across the Murrumbidgee River at Gundagai; and the Murray River was bridged at Echuca on the New South Wales-Victoria border in 1878. The last-mentioned bridge was intended as a rail bridge but the local residents stormed it on the day of the official opening and forced it to be opened to all traffic. As timber-built bridges had been found to be more vulnerable to fire, flood and decay, the more important bridges during this time were of iron and were built high above the floodplain.

* *The Mother Colony of the Australians*, ed. Frank Hutchinson; Department of Public Works, Sydney, 1896, page 290.

Streets within towns were improved as a result of the establishment of shire councils with responsibility for, among other things, the maintenance of local roads. Where control for both road works and railways had previously been centralised in one department the condition of the roads had generally declined at the expense of the railways. In 1907 shires in New South Wales started to receive regular grants from the State Government and they were also given more independence in levying rates. They were not responsible for the construction and maintenance of arterial roads and bridges, this being the responsibility of the State Government. However, this did not alter the fact that most road construction was initially the responsibility of the shire councils, whereas today, shire councils and the State governments share the responsibility of construction.

Technological advances

Late in the 19th Century, road travel was still slow and the journey uncomfortable. Most roads outside country towns were still unsealed, as crushed metal (used in macadamisation)* was costly. City dwellers, however, were more fortunate. New road construction methods had been developed and accepted. Much of the initial development of wood block pavements was carried out in Australia and in 1880 the first such pavement in Australia was laid as an experiment in King Street, Sydney. By the end of the decade numerous pavements of blackbutt, tallow wood or blue or red gum had been laid in Sydney and Melbourne. In Adelaide, tar macadam had been discovered by accident as a road pavement when a tar cart tipped over, spilling its load on the street.

By 1900 the technical problems of the time had largely been solved. Until motor vehicles imposed new demands on road surfaces, the roads which had been developed were satisfactory for the traffic carried. (Although motor vehicles appeared on the roads before the end of the century, they were of little influence until after World War I.) In country districts most roads were of earth or gravel with no foundation, with a macadamised pavement used only on heavily trafficked roads. In cities, suburban streets with light traffic were macadamised, while a Telford base with a water-bound macadam surface was used only on roads with heavier traffic and on experimental and specialised types of pavement in areas with the heaviest traffic. In 1890, another improvement in road building was made with the successful use of asphalt as a surfacing material.

The advent of the motor vehicle

The advent of the motor vehicle altered the state of balance in which the road network had existed with the other modes of travel and the land use patterns. One of the first consequences was the necessity for the administrative structures to be altered to serve the changed set of circumstances.

The establishment in Victoria of the Country Roads Board (C.R.B.) in 1913, was the beginning of the drive by State governments to centralise control of road construction and maintenance. The development of the motor vehicle was bringing more traffic and a different type of traffic to the roads, and the municipalities were unable to cope with this changed situation. A central authority was needed to co-ordinate expenditure and planning. The C.R.B. was established to designate main roads and to share with the municipalities the cost of maintaining and constructing these roads. Consequently, the proportional contribution of the municipalities has declined over the years. The power of the C.R.B. has increased with more types of road having been brought under its control. Developmental roads, isolated settlers' roads, State highways, tourist and forest roads and, in 1956, by-pass roads (or freeways) have also been designated and constructed, or funds for construction have been supplied to local road authorities, by the C.R.B.

Similar development has occurred in the other States. In Queensland, the Main Roads Commission (now the Main Roads Department) was established in 1920; in New South Wales, the Main Roads Board (now the Department of Main Roads) was established in 1925; and in Western Australia the Main Roads Board was established in 1926 and replaced by the Main Roads Department in 1930. The administrative machinery needed to cope with the wide use of cars had been established by the end of the 1920s; in every State there was a central main roads authority.

The dominance of railways in the late 19th century had largely eliminated the need for high standard arterial roads, but the existing roads, suitable for horses, became inadequate with increasing usage by motor vehicles. Gravel roads were often narrow, rough, ungraded and impassable by cars in the wet, while tyres of the early cars were generally comprised of solid rubber (with some steel rimmed tyres) which damaged the roadway if it was at all irregular. Furthermore, the grade, surface, alignment and sight distances provided by the existing roads were not adequate for the faster, more heavily loaded vehicles which made up an increasing portion of the traffic. Hence a greater degree of government initiative was needed. Although regular subsidies had been given to local authorities for some years, many councils lacked engineers so it became necessary for the road boards to

* Macadamised roads had a surface of durable stone, broken up and rolled tightly.

establish basic standards of design, construction and maintenance. Before the advent of motor vehicles, roads had deteriorated only at a slow rate and maintenance generally involved routine filling of potholes and occasional reshaping of the roads. However, with motor vehicles becoming more widely used, much closer attention to pavement surface was needed and preventative maintenance developed.

One of the first tasks of the Main Roads Board in New South Wales was the construction of a coastal road between Newcastle and Sydney. The new road was opened in 1930 and reduced the distance from Sydney to Newcastle from 249 kilometres to 172 kilometres and the ferry across the Hawkesbury River at Peat's Crossing (which had been closed when the railway bridge was built in 1889) was reopened and operated until a road bridge was opened in 1945. A system of roads primarily to join the major cities was a little closer with the completion of this road.

The depression of the 1930s slowed the development of a higher standard road network. Substantial road funds were, by this time, being collected by the States from registration of motor vehicles, so that when motor vehicle ownership fell during the depression (the number of cars registered fell between 1930 and 1932, not reaching the 1930 peak until 1935) revenue declined as a consequence, and expenditure on construction and maintenance (particularly on main roads) likewise decreased. Rural roads were less affected since some unemployment relief funds were used to finance work on subsidiary roads.

Despite the effect of the 1930 depression on road revenue, the 1920s and 1930s were a time of considerable technological innovation. Great advances were made in the construction of lightly trafficked roads and in surfacing technique during this period with the large scale development of bituminous pavements. Binding of local gravels with tar and bitumen produced a smooth surface for traffic, that was cheaper, safer for motorists and less dusty in use.

The effect of the 1939-45 War

Strategic considerations of the 1939-45 War had a profound influence on the Australian road network. The development of a system of major arterial roads was hastened as arterial roads and bridges were strengthened to support heavy army traffic. For the defence of the northern part of the country, supply roads had to be built to established centres and new roads built to the airfields which were being built around the northern perimeter of the continent. In 1942, the Allied Works Council was formed to plan and supervise road development for the war effort. Army and civilian construction authorities shared the task of developing the road network. The main road authorities of New South Wales, Victoria and South Australia jointly undertook the reconstruction and sealing of the Stuart Highway in the Northern Territory, the main supply route running north from the railhead at Alice Springs to the railhead at Larrimah. Over 960 kilometres of road was converted from a rutted, dusty, often impassable dirt track to an all-weather sealed highway capable of withstanding heavy military traffic. This road (later extended to Darwin) followed the route of the overland telegraph line. The Stuart Highway, the Eyre Highway parallel to the transcontinental rail line, and a supply route to the Northern Territory from Queensland (linking Darwin and Brisbane) were the most important arterial roads constructed in this period.

However, with the effort needed to rapidly improve the arterial road network, construction authorities did not have the resources to properly maintain other roads. Because of this, country roads deteriorated badly during the war, and in the *Commonwealth Aid Roads and Works Act 1947*, a specific grant for these roads was made in an attempt to overcome the backlog.

The post-war period

The progress in development of roads in remote areas achieved during the war has been continued by the Australian and State governments. Thus, States have designated development and tourist roads and assisted in the construction of these, while the Australian Government has participated in beef road development since 1949 when a program of road improvements to facilitate cattle transport was begun in Queensland, Western Australia and the Northern Territory. Grants have also been given for maintenance of certain roads designated as 'strategic': e.g. the Eyre Highway in South and Western Australia and the Barkly Highway in Queensland. Additional assistance has been given to South Australia as a contribution towards the costs of completing the sealing of the Eyre Highway. Tasmania has also received a grant to finance the construction of roads in the Gordon River region of south-west Tasmania to assist the development of the hydro-electric system.

The postwar period has brought accelerated change to the road system. In the cities, one result of the dominance of train and tram transport systems in the late nineteenth and early twentieth centuries had been a 'radial' pattern of development, with settlement extending along the transport arteries. The development of motor vehicles enabled this pattern to be altered. The effect of motor vehicles on the community has been much more widespread than merely its effect on the road system. The rapid growth of population and motor vehicle ownership, the physical expansion of the cities,

and the highly mobile lifestyle of the residents, have resulted in rapidly expanding government road budgets to provide a network of arterial roads and suburban streets in urban areas.

Problems facing road authorities in this period included attempting to catch up with the backlog of road works from the war period, to cater for ever-growing numbers of vehicles, to link isolated settlements with all-weather roads and to provide higher standards of service for the increasingly heavily trafficked roads. In the rural areas considerable progress was made by both State and local road authorities in improving many kilometres of arterial roads, as well as pursuing policies of sealing farm-to-market roads. Nevertheless some anomalies arose in this period such as farm access or minor rural roads being sealed but connecting with major arterial roads whose surfaces were unpaved. Problems of this sort brought into prominence the whole question of allocation of resources to road development, priorities of road improvement and the financial arrangements for roadworks.

Responsibility for roads

Legal responsibility for roads in the Territories is borne by the Australian Government while in the States it is shared between the State road authorities, local governments and, in some cases other authorities established by the State Governments. Since the establishment of the State road authorities early this century, their responsibilities have widened considerably as more types of roads have been classified by the State governments as under their control.* Now, in most States, they are responsible for roads classified as freeways, State highways, tourist roads, developmental roads, other roads which were constructed for State or national purposes and all roads in unincorporated areas. The local government authorities are responsible for all unclassified roads (i.e. those which are not classified as controlled by the State road authorities) except in areas where special authorities have been established by the State government with responsibility for, among other things, road care, control and management (e.g. the Melbourne and Metropolitan Board of Works had responsibility until June 1974 for those roads in Melbourne declared by the Governor-in-Council to be metropolitan roads and metropolitan main highways). The State road authorities provide substantial financial assistance to local government authorities towards the cost of construction and maintenance of unclassified roads.

Since the advent of the motor vehicle, the financing of road investment has been characterised by the increasing involvement of the Australian Government and by increases in the level of funds provided. Today, approximately an equal amount of finance is provided by each level of government—Federal, State and local. However, the distribution between construction and maintenance varies. It is estimated that, while the Australian Government provides little finance for maintenance, in 1971–72 it provided about 60 per cent of the finance for construction of arterial roads and about 45 per cent of total construction finance. The rest of the finance for arterial road construction was provided by State governments. The remaining 55 per cent of total construction finance not provided by the Australian Government, and most of the maintenance finance, is provided in approximately equal parts by State and local authorities.

By the *Public Works Act* 1922, the Australian Government distributed \$500,000 to the States on a population basis with a dollar-for-dollar matching condition. The money was to be spent on maintenance of roads outside city areas and all expenditure was to be approved by the Australian Government. Further grants were made from 1923 to 1931 for specific roads only, and subject to matching conditions. To raise funds to meet expenditure on roads the States attempted to place a tax on the use of petrol but the High Court ruled the tax to be an excise duty and therefore invalid. The right of the Australian Government to impose conditions on grants was established when the High Court dismissed a challenge by the Victorian Government over the conditions imposed on the specific purpose grant in the *Federal Aid Roads Act* 1926.

Severe economic hardship caused by the depression, and the problem of increasing budget deficits, influenced the formulation of the *Federal Aid Roads Act* 1931. Matching conditions were no longer applied and purposes for which the grants could be used were less rigidly defined. Matching conditions were not reintroduced until the *Commonwealth Aid Roads Act* 1959 when a dollar-for-dollar matching condition was applied to part of the grant. In this period from 1931 to 1959, Australian Government grants rose substantially owing to increases in the proportions of petrol duties earmarked for roads, rising fuel consumption and supplementary grants made to the States. Grants to the States had fallen during the 1939–45 War because of the Government restriction on petrol consumption, but subsequently the amount rose with each successive piece of legislation.

Under the *Commonwealth Aid Roads Act* 1959, the Australian Government's contributions increased substantially, matching conditions were reintroduced for the additional grants, and the relationship between the grant and fuel tax revenues was deleted. For the first time, the States were

* These classifications vary between the States and do not accord with the Australian Government's functional classes of road (which are defined further on).

permitted to use a portion of the grant for planning and research relating to construction, maintenance and repair of roads. The *Commonwealth Aid Roads Act* 1964, was similar to the 1959 Act. The total grant was increased by 50 per cent and the provision for expenditure on planning and research was extended. In 1964, the Australian Government constituted the Commonwealth Bureau of Roads (C.B.R.) to advise it on the appropriate size and distribution of the grants by the Australian Government to the States for roads and road transport.

In the light of Commonwealth Bureau of Roads recommendations, the *Commonwealth Aid Roads Act* 1969 provided for \$1,252 million to be distributed to the States over the five year period 1969-70 to 1973-74. This was composed of a principal grant of \$1,200 million, conditional upon each State meeting a 'quota' of expenditure on roads from its own sources, and a supplementary grant of \$52.05 million payable to South Australia, Western Australia and Tasmania, on which no conditions were imposed. These supplementary grants were to be phased out by the end of the period specified in the Act. Four categories of road expenditure on which the grants could be spent were designated. The inclusion of two categories, expenditure on urban arterial and sub-arterial roads and on rural arterial roads, was a new development intended to establish a high standard arterial road system. The other two categories were expenditure on other rural roads and on planning and research. Planning and research was defined to include investigation into road transport in relation to other means of transport, research into road safety, the design of vehicles and the behaviour of road users—all areas of increasing importance with the rapid growth of road traffic and the resulting undesirable effects. As mentioned above, the Australian Government has also provided grants for beef roads, the Eyre and Barkly Highways and the Gordon River Road.

Conclusion

The present

While roads have many functions, an overall pattern of use has emerged so that it is possible to categorise the Australian road system in accordance with a hierarchical classification based on predominant function.

In 1971 and 1972 the Australian Roads Survey 1969-74 was conducted jointly by the Commonwealth Bureau of Roads and the National Association of Australian State Road Authorities. The survey covered all roads open to the public in Australia. To classify roads by function, nine functional classes were used, five covering rural roads and four covering urban roads. The final results of the survey included an inventory of the Australian roads system containing information on the physical conditions and traffic characteristics.

**LENGTHS OF ROADS OPEN TO THE PUBLIC: AUSTRALIA, JUNE 1972
(Kilometres)**

Road type	Functional class of road(a)									Total	Proportion per cent	
	Rural					Urban						
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9			
Sealed pavement—												
Dual carriageway . . .	182	113	130	254	..	1,131	190	14	..	2,014	0.2	
Single carriageway . . .	17,057	21,285	40,684	75,594	1,197	3,858	6,598	38,230	195	204,699	24.9	
<i>Total sealed</i> . . .	<i>17,239</i>	<i>21,398</i>	<i>40,815</i>	<i>75,848</i>	<i>1,197</i>	<i>4,989</i>	<i>6,788</i>	<i>38,244</i>	<i>195</i>	<i>206,714</i>	<i>25.1</i>	
Unsealed pavement . . .	1,123	1,640	12,128	177,966	1,109	5	452	7,762	24	202,209	24.6	
Formed earth . . .	3,228	1,622	11,832	191,689	655	..	31	2,363	..	211,421	25.7	
Natural surface . . .	1,009	74	2,451	194,504	1,057	8	18	2,155	..	201,276	24.5	
<i>Total</i> . . .	<i>22,600</i>	<i>24,734</i>	<i>67,225</i>	<i>640,007</i>	<i>4,018</i>	<i>5,002</i>	<i>7,289</i>	<i>50,524</i>	<i>220</i>	<i>821,620</i>	<i>100</i>	
Proportion (per cent)	2.8	3.0	8.2	77.9	0.5	0.6	0.9	6.1	..	100	..	

(a) The nine functional classes used in the survey are:

Rural roads

- Class 1—For movement of people and goods between the major cities and regions.
- Class 2—For movements between major cities and towns and between the towns.
- Class 3—For movements between important centres and between centres and towns and as feeder roads to the class 1 and 2 roads.
- Class 4—For provision of road access to properties and houses.
- Class 5—For provision for one particular activity or function in rural areas.

Urban roads

- Class 6—For large volume movement of people and goods.
- Class 7—For large volume movement of traffic for distribution to the local street systems and to supplement the class 6 roads.
- Class 8—For provision of road access to abutting properties.
- Class 9—For provision for one particular activity or function in urban areas.

NOTE. Classes 1, 2 and 3 roads comprise rural arterial roads, class 6 roads are urban arterial roads and class 7 roads are also known as urban sub-arterial roads.

There are now over 800,000 kilometres of road and over 30,000 structures (principally bridges) in the Australian network. From the table above it can be seen that, of this total road length, some 14 per cent comprises the major rural arterials (including the national highways) and 2 per cent the urban arterials and sub-arterials. The arterials, totalling 16 per cent of all road mileage, carry the bulk (74 per cent) of the nation's road traffic, with the single largest proportion (47 per cent) of the traffic being carried on the urban arterials.

Substantial improvements have been made in road standards. Nevertheless much has yet to be achieved, as the following facts from the 1972 survey indicate. Of the 114,559 kilometres of rural arterials and sub-arterials (14 per cent of the nation's total road length) only 79,452 kilometres (69 per cent) were sealed, and only a miniscule 425 kilometres (1 per cent of rural roads) were dual carriageways.

In urban areas, while the bulk of all the arterials were sealed, only 1,321 kilometres (11 per cent) of the total arterial road distances were dual carriageways. Urban freeway development in Australia, comprising about 71 kilometres in all cities, was far below that of overseas cities of comparable size, population density, and motor vehicle ownership and usage rates.

Future developments

The two most important new developments in expanding and up-grading Australia's road network, now being discussed by planners are:

- (i) the need to develop a national highways system; and
- (ii) the planning of improved urban roads for both the already developed and the newly-developing urban areas of the nation.

National highways system. Although numerous countries have developed national roads systems (e.g. United States of America, Federal Republic of Germany), this idea has received general acceptance only recently in Australia. The fundamental concept is one of identifying, designing and developing a system of arterial roads connecting the capital cities and the principal regions of the nation, and recognising a national interest in road development that goes beyond the local considerations which have largely determined road building activities in the past. Thus, highways are needed to provide for traffic which is long distance in nature, or is export oriented, or which crosses State or major regional boundaries. The benefits of highway development often accrue beyond the confines of any one State. In these circumstances it is evident that there is a role for the national government in the strategic planning, financing and improvement of such roads.

Australian Government participation has been recognised in the *National Roads Act 1974*, in which the Australian Government has taken the full financial responsibility of the development and implementation of a national highways system requiring co-ordinated planning at the national level. Adoption of such a policy is a major new development in the history of roads in Australia, not only because of the magnitude of the national highways task but also because historically the Australian Government had largely left road planning and construction to the States and to local governments.

Urban roads. The need to upgrade and expand the nation's urban roads also poses a number of planning problems which hitherto has not been faced by State and local government road authorities in Australia.

At one end of the planning spectrum is the need to cater for and regulate the ever-increasing volumes of vehicular traffic which are causing congestion on the existing arterials; at the other end of the spectrum, but related to the first problem, is the need to meet the increasing demands by citizens for an altered and improved property-access street system which will continue to provide access, yet will improve the amenity of urban areas by reducing and controlling traffic flows in residential shopping and recreational precincts. The planning process should also attempt to make provision for road safety and minimising of pollution.

Common to both these requirements is the need to integrate urban road construction programs with programs for the development of other than private-vehicle modes of transport. On a broader scale, there is the need to integrate transport planning (for roads and other modes) with land use planning in new programs for improved urban and regional development. These considerations, plus the high cost of undertaking roadworks in established urban areas, has thrown new emphasis on the need for improved planning methodologies for urban roads. The Australian Government's participation in meeting these aims is reflected in the provision of funds for planning under the *Transport (Planning and Research) Act 1974* and the *Urban Public Transport (Research and Planning) Act 1974*. In addition, under the *Road Grants Act 1974*, the Australian Government requires investigation of road projects to ensure that the impact of road improvements is not excessively detrimental to urban life.

The challenge for the future is to develop improved urban road networks forming part of an overall balanced transport system which will cause minimal environmental and social disruption and receive general community acceptance.

AIR TRANSPORT

Department of Transport (Air Transport Group)

Control of air transport in Australia is exercised by the Department of Transport's Air Transport Group. The Group's jurisdiction covers Australia and areas of the Indian and Pacific Oceans. Year Books Nos. 16, 19 and 38 trace the establishment of air transport control in Australia and the appropriate Acts of Parliament and Regulations under which this control is exercised. The present functions of the Group are shown in Year Book No. 51, pages 578-9, and further details about its operations are given in the annual reports to the Australian Parliament by the Minister for Transport.

Regular air services within Australia

Interstate services. The majority of scheduled interstate services with passenger and all-freight aircraft are provided by two airlines only, the private enterprise airline Ansett Airlines of Australia (a division of Ansett Transport Industries (Operations) Pty. Ltd., which is a subsidiary of Ansett Transport Industries Ltd.) and the Australian Government-owned Trans-Australia Airlines. All principal routes are competitive, with both airlines providing equal capacities in accordance with legislation passed by the Australian Parliament. The two principal Acts which establish the legislative basis of this controlled competition are the *Airlines Agreement Act 1952-1972* and the *Airlines Equipment Act 1958*. The Airlines Equipment Act established the machinery for the achievement and maintenance of comparable, but not necessarily identical, aircraft fleets between T.A.A. and Ansett Airlines of Australia, and is designed to prevent the provision of excess aircraft capacity. The Airlines Agreement Act established the basis of control of the two-airline competitive system and extended this machinery until at least 1982.

In addition to purely interstate services, both Ansett Airlines of Australia and Trans-Australia Airlines operate routes to Papua New Guinea under a pool agreement with Air Niugini and non-competitive intrastate routes in Australia. The Ansett Airlines of Australia non-competitive routes radiate mainly from Melbourne, while those of Trans-Australia Airlines are located within Queensland.

At 30 June 1973 the Ansett Airlines of Australia fleet included seven Boeing 727s, twelve DC-9s, eleven Friendships, three L188(F)s and two helicopters. At the same date Trans-Australia Airlines operated a fleet of seven Boeing 727s, twelve DC-9s, thirteen Friendships and six Twin Otter DHC-6.

Intrastate services. In addition to the intrastate services operated by Ansett Airlines of Australia and Trans-Australia Airlines there are a number of smaller regional airlines operating from Sydney (Ansett Airlines of New South Wales and East-West Airlines), Adelaide (Ansett Airlines of South Australia), Perth (MacRobertson Miller Airlines), and Alice Springs (Connair). With the exception of Connair, which provides regular service to outback homesteads and communities, all of these are concerned primarily with traffic moving to and from the respective capital city. With the exception of the independently owned East-West Airlines and Connair, all regional airlines are divisions of Ansett Transport Industries (Operations) Pty. Ltd. The larger aircraft used by these regional airlines are Fellowships, Friendships and Convairs. Connair uses DC3s, Herons and smaller aircraft types.

Commuter services. These are not airline services but regular flights by charter firms with small single and twin-engined aircraft operating to fixed and published timetables. They provide regular air links between many centres, towns and country areas which are either not served by the major airlines or have no direct air service with their capital or nearest major provincial city. The first commuter service approved was for Opal Air Pty Ltd, of Coober Pedy (S.A.), to operate between Adelaide and the South Australian opal fields. At 30 June 1973 twenty-four charter operators were operating commuter services in Australia. Details of the operations of these commuter services are excluded from the statistics shown in this section.

Scheduled domestic airline services. Statistics of all regular airline services are set out in the following table.

**AIR TRANSPORT: OPERATIONS OF REGULAR INTERNAL SERVICES
AUSTRALIA(a)**

		1968-69	1969-70	1970-71	1971-72	1972-73
Hours flown	number	244,606	251,582	258,793	248,774	256,435
Kilometres flown	'000	97,121	106,605	114,605	115,931	121,605
Passengers—						
Embarkations	number	5,184,828	5,911,002	6,340,036	6,629,316	7,502,892
Passenger-kilometres	'000	3,865,295	4,510,536	4,974,220	5,276,524	5,842,540
Freight—						
Tonnes uplifted	tonnes	81,599	90,809	91,401	89,883	94,425
Tonne-kilometres	'000	66,461	74,491	78,047	76,475	84,039
Mail—						
Tonnes uplifted	tonnes	8,959	9,639	9,916	10,137	10,114
Tonne-kilometres	'000	8,027	8,687	9,329	9,589	10,100

(a) Includes flights of all Australian-owned airlines, with the exception of those of Qantas Airways Limited, between airports located within Australia.

Internal airline passenger embarkation and disembarkation

The statistics set out in the next table have been compiled by aggregating all internal airline passenger traffic loaded and unloaded at each airport. They include passengers on flights between Australia and Papua New Guinea and Australia and Norfolk Island. At ports where through-passengers transfer between flights, such passengers are counted as embarking as well as disembarking passengers.

**INTERNAL AIRWAYS PASSENGER EMBARKATIONS AND
DISEMBARKATIONS AT PRINCIPAL AUSTRALIAN AIRPORTS**

<i>Airport</i>	1968-69	1969-70	1970-71	1971-72	1972-73
Sydney	2,933,795	3,390,322	3,515,231	3,694,498	4,162,659
Melbourne	2,278,032	2,603,320	2,750,602	2,861,896	3,226,294
Brisbane	1,009,060	1,184,846	1,347,118	1,448,920	1,658,043
Adelaide	930,207	1,016,689	1,019,320	1,046,840	1,154,384
Canberra	461,888	541,791	596,171	670,608	813,712
Perth	357,236	420,603	510,328	545,890	536,057
Hobart	196,335	200,638	222,397	227,016	282,676
Launceston	171,612	179,614	197,500	208,090	244,982
Coolangatta	102,764	132,102	166,239	188,917	243,994
Townsville	168,247	197,107	197,942	202,160	231,665
Cairns	101,031	127,252	158,986	182,300	204,414
Mackay	87,313	95,841	125,220	133,806	159,408
Darwin	78,165	98,523	118,375	131,703	141,696
Rockhampton	74,760	83,883	97,264	101,685	113,823
Alice Springs	39,549	52,522	57,299	65,497	89,018
Devonport	68,125	68,257	71,426	75,388	84,290
Wynyard	57,132	63,041	65,563	70,597	75,532
Mount Isa	37,423	52,272	67,938	69,760	68,741
Tamworth	46,558	51,640	50,870	59,557	67,479
Wagga	49,519	54,378	52,181	52,511	56,651
Dubbo	51,775	56,014	55,574	50,827	56,566
Kingscote	45,993	50,878	51,135	47,993	48,609

International activity

International organisations. A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council, and the South Pacific Air Transport Council appeared in Year Book No. 37, and particulars of subsequent activity in the international field were included in No. 38. The International Civil Aviation Organization had a membership of 129 nations in June 1973. Australia has continued its position as a member of the Council, which it has held since I.C.A.O. was established in 1947. Further details will be found in Year Book No. 40 and earlier issues.

International agreements. Australia had air service agreements in force with twenty-four countries at 30 June 1973. They were Austria, Britain, Canada, Sri Lanka, Egypt, Fiji, France, Federal Republic of Germany, Greece, India, Indonesia, Ireland, Italy, Japan, Lebanon, Malaysia, Nauru, Netherlands, New Zealand, Philippines, Singapore, Republic of South Africa, Thailand, and the United States of America. Under these agreements Australia is granted rights to operate services between Australia to and through the countries in question; these rights are exercised by Australia's international airline Qantas. In return, the designated airlines of the other countries which are partners to these agreements are granted traffic rights in Australia. Australia also had air service arrangements granting traffic rights with eight other countries at 30 June 1973. These were Bahamas, Bahrain, Iran, Mauritius, Mexico, Portugal, Syria and Turkey.

International air services. At 30 June 1973, twenty-one overseas international airlines were operating regular scheduled services to Australia. These are: Air-India (India), Air Nauru (Nauru), Air New Zealand (New Zealand), Air Pacific (Fiji), Alitalia (Italy), British Airways Overseas Division (Britain), Canadian Pacific Air Lines (Canada), Cathay Pacific (Britain), Deutsche Lufthansa (Federal Republic of Germany), Garuda (Indonesia), Japan Air Lines (Japan), K.L.M. Royal Dutch Airlines (Netherlands), Singapore International Airlines (Singapore), Merpati Nusantara Airlines (Indonesia), Olympic Airways (Greece), Pan American World Airways (United States of America), Philippines Air Lines (Philippines), South African Airways (Republic of South Africa), Thai International (Thailand) and Union de Transport Aeriens (France). Trans-Australia Airlines operates between Darwin and Portuguese Timor under charter to Transportes Aereos de Timor. Qantas, Australia's international airline, operates a fleet of twenty-eight aircraft of which nineteen are Boeing 707-339C jet aircraft and six are Boeing 747B jet aircraft. All the shares in Qantas Airways Limited are owned by the Australian Government.

International operations. The table following shows particulars of international airline traffic during 1972-73 moving into and out of an area which embraces Australia, Papua New Guinea, and Norfolk Island. These figures do not include traffic between Australia and Papua New Guinea and Norfolk Island.

**AIR TRANSPORT: INTERNATIONAL AIRLINE TRAFFIC
TO AND FROM AUSTRALIA(a), 1972-73**

<i>Type of traffic</i>	<i>Aircraft movements</i>	<i>Passengers</i>	<i>Freight</i>	<i>Mail</i>
Traffic to Australia—			tonnes	tonnes
Qantas Airways Limited	3,754	382,725	9,071	621
Other airlines	6,118	511,519	13,729	2,999
All airlines	9,872	894,244	22,800	3,620
Traffic from Australia—				
Qantas Airways Limited	3,770	377,535	7,734	1,539
Other airlines	6,093	498,037	9,975	750
All airlines	9,863	875,572	17,709	2,289

(a) Australian mainland, and Papua New Guinea and Norfolk Island.

Statistics covering the operations of Australia's regular overseas services are shown in the following table. These operations include all stages of Qantas flights linking Australia with external territories and overseas countries, and stages external to Australia for flights of other Australian-owned airlines; they exclude flights over stages located within Papua New Guinea.

AIR TRANSPORT: OPERATIONS OF AUSTRALIA'S REGULAR OVERSEAS SERVICES

	1968-69	1969-70	1970-71	1971-72	1972-73
Hours flown number	74,757	84,684	97,307	91,357	87,548
Kilometres flown '000	54,059	60,410	70,346	66,270	64,823
Passengers—					
Embarkations number	642,524	751,315	839,629	885,548	1,054,929
Passenger-kilometres '000	3,616,584	4,020,431	4,446,906	4,892,044	6,775,195
Freight—					
Tonnes uplifted tonnes	16,816	19,201	21,455	20,961	23,239
Tonne-kilometres '000	135,032	151,427	155,143	143,514	150,342
Mail—					
Tonnes uplifted tonnes	2,596	2,654	2,819	2,841	2,791
Tonne-kilometres '000	22,893	22,109	22,862	24,627	22,891

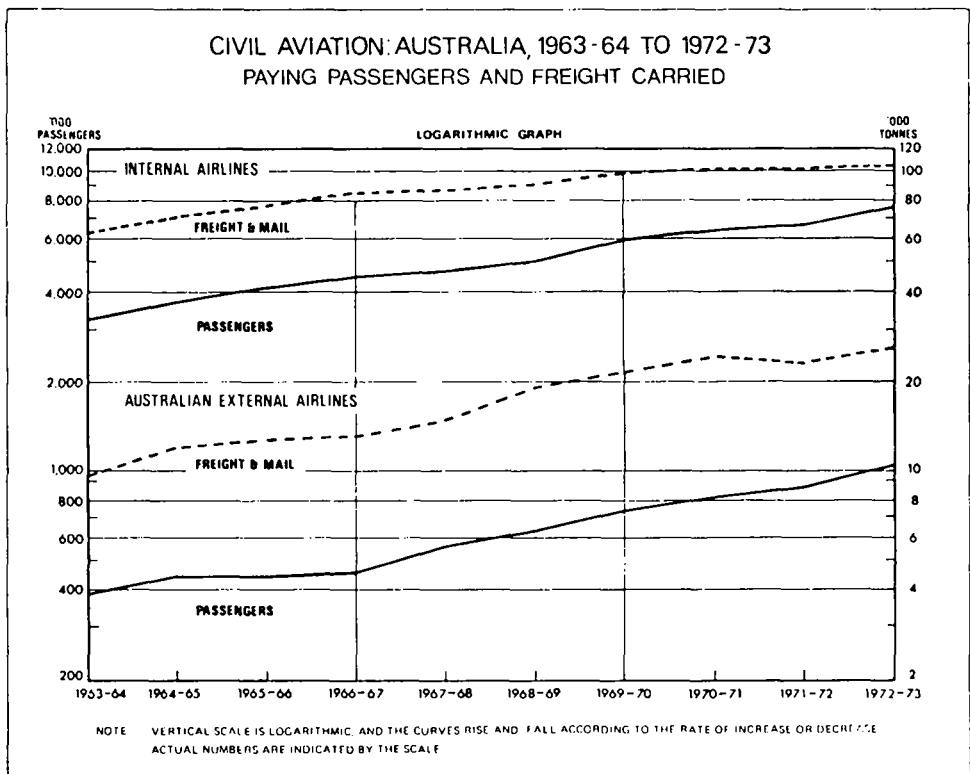


PLATE 35

General aviation

General aviation activity, which covers all non-airline operations such as charter, aerial work and private flying, has grown rapidly throughout Australia in recent years and is an important sector of the Australian aviation industry. In 1972-73 the general aviation hours flown, chiefly with light aircraft totalled 1,057,000 compared with 285,000 hours flown by Australian airline aircraft. At 30 June 1973 aircraft employed in general aviation numbered 3,906.

Aerodromes

The number of aerodromes throughout Australia and its External Territories at 30 June 1973 was 715. One hundred and ten were owned by the Australian Government and 605 by local authorities and private interests. Capital expenditure on aerodrome and building construction was \$10.2 million in 1972-73. Maintenance expenditure on Australian Government-owned aerodromes during 1972-73 was \$2.8 million, and development and maintenance grants to licensed aerodromes participating in the Local Ownership Plan totalled \$971,000.

Airways facilities

A total of 424 navigational aids were in service at 30 June 1973. The total includes 236 non-directional beacons (NDB), 111 distance measuring equipment (DME), 4 international distance measuring equipment (DMEI), 17 visual-aural ranges (VAR), 37 VHF omni-directional ranges (VOR), 17 instrument landing systems (ILS) and 2 twin locator approach systems.

One hundred and twenty-eight aerodromes are now equipped with night landing facilities. Seventy-two approach slope indicator systems (VASIS), of which sixty-seven are Australian designed 'T' systems (T-VASIS), are operating. Seven long range surveillance radars and two short-range (TAR) are also in operation. There are thirty-one fully equipped Air Traffic Control Centres and sixty flight service units.

Air transport registrations, licences, etc., in force in Australia

At 30 June 1973 there were 3,906 aircraft registered in Australia. There were also, at 30 June 1973, 27,727 pilots' licences in force of which 12,710 were private pilots' licences, 3,251 commercial pilots' licences, and 9,332 student pilots' licences. Flight radio-telephone operators' licences numbered 20,139.

Accidents and casualties

**AIR TRANSPORT: ACCIDENTS INVOLVING CASUALTIES(a)
AUSTRALIA(b)**

	1968-69	1969-70	1970-71	1971-72	1972-73
Number	17	47	31	28	30
Persons killed	47	49	48	37	41
Persons seriously injured	20	41	24	23	8

(a) Accidents involving civil aircraft which resulted in death or serious injury. Excludes parachutists killed on contact with earth after an uninterrupted fall. (b) Excludes accidents outside Australia involving aircraft on the Australian register.

**POSTS: INTERNAL AND OVERSEAS TELECOMMUNICATION
SERVICES RADIOCOMMUNICATION STATIONS**

In this division particulars for the Australian Capital Territory are included with those for New South Wales, and the South Australian figures include particulars for the Northern Territory, unless otherwise indicated. The Central Office of the Postmaster-General's Department is located in Melbourne, Victoria.

Postmaster-General's Department—General

The principal functions of the Department are reflected in the *Post and Telegraph Act 1901-1973*. Since its establishment the Department has assumed other responsibilities some of which are currently reflected in the *Wireless Telegraphy Act 1905-1973* and the *Broadcasting and Television Act 1942-1973*.

The basic role of the Department is to provide within Australia a network of facilities which enable people and organisations:

- to send letters, printed matter, parcels and money in Australia and overseas and to receive such items within Australia from overseas.
- to converse by telephone in Australia and overseas.
- to send and receive written messages, data, pictures and other visual matter by electrical means within Australia and to and from overseas.
- to relay on the telecommunications network, radio and television broadcasts emanating within Australia and those on relay to and from overseas.

In addition the Department has the following responsibilities:

- to plan and manage the radio frequency spectrum and regulate radio communications service;
- to construct, maintain and operate the transmitters of the National Broadcasting and Television Service and the Radio Australia Service (see pages 407-11); and
- to provide agency services for Australian and State Government Departments and other instrumentalities

Research

The Postmaster-General's Department maintains its own research facilities as part of the headquarters organisation in Melbourne. The P.M.G. Research Laboratories had a staff of approximately 500 at 30 June 1973. The main functions of the laboratories are to conduct research and advanced development in the fields of telecommunications science and technology to assist the Department's planning of the development of Australia's telecommunications networks so that community needs for communications services can be met sufficiently and effectively, to assist in the solution of technical problems peculiar to the Australian networks and to maintain Departmental expertise in the selection of advanced systems and equipment offered by manufacturers.

Postal facilities

The following table shows the number of post offices, the area in square kilometres and the number of inhabitants to each post office (including non-official offices), and the number of inhabitants to each 100 square kilometres in each State and in Australia at 30 June 1973.

POSTAL FACILITIES: RELATION TO AREA AND POPULATION, 30 JUNE 1973

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Post offices—							
Official	512	330	215	171	161	46	1,435
Non-official	1,563	1,316	865	650	421	284	5,099
Total post offices	2,075	1,646	1,080	821	582	330	6,534
Square kilometres of territory per office	387	138	1,600	2,840	4,343	207	1,176
Inhabitants per office	2,347	2,179	1,773	1,577	1,836	1,200	2,010
Inhabitants per 100 square kilometres	604	1,572	110	55	42	578	170

Employment

PERSONS PROVIDING POST OFFICE SERVICES: CENTRAL OFFICE AND STATES
30 JUNE 1973

	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust
Official full-time staff(a)—								
Permanent officers	3,152	28,541	21,059	12,471	9,178	7,353	2,753	84,507
Temporary and exempt employees	194	13,722	8,548	3,795	1,757	2,275	622	30,913
Total	3,346	42,263	29,607	16,266	10,935	9,628	3,375	115,420
Other(b)—								
Non-official postmasters and post-mistresses . . . . .	..	1,673	1,322	882	626	423	255	5,181
Other staff at non-official offices . . . . .	..	533	498	333	192	67	22	1,645
Telephone office-keepers . . . . .	..	129	15	208	68	139	5	564
Mail contractors (including persons employed to drive vehicles) . . . . .	..	1,716	914	909	308	261	139	4,247
Total . . . . .	..	4,051	2,749	2,332	1,194	890	421	11,637
Grand total	3,346	46,314	32,356	18,598	12,129	10,518	3,796	127,057

(a) Persons directly under the control of the Department. Excludes 3,315 part-time staff. (b) Persons not directly under the control of the Department. Includes persons employed either full-time or part-time under contract or in return for payments appropriate to work performed.

Financial operations—Postmaster-General's Department

The financial tables which follow allow for the changed accounting arrangements introduced by the Postmaster-General's Department following amendment of the Post and Telegraph Act in 1968.

Earnings

The following table shows the earnings of the Postmaster-General's Department as taken from successive Profit and Loss Statements.

**POSTMASTER-GENERAL'S DEPARTMENT: EARNINGS, BY SOURCE
AUSTRALIA
(\$'000)**

Year	Postal service			Telecommunications service					Total	
	Postages	Money order and postal order fees	Commission on agency services	Other earnings	Telephone rentals	Telephone calls	Telegrams	Leased telegraph services		Other earnings (a)
1963-64	97,842	2,638	3,976	2,121	64,422	129,736	10,641	5,172	12,746	329,293
1964-65	103,032	2,722	4,243	2,194	82,175	142,722	11,423	5,847	15,687	370,045
1965-66	107,402	2,771	4,277	2,296	93,856	154,304	11,639	6,144	18,585	401,274
1966-67	110,317	2,919	4,300	2,452	100,823	171,100	11,868	7,018	20,691	431,488
1967-68	127,748	3,178	4,406	2,847	108,293	211,812	14,172	7,478	22,722	502,656
1968-69	142,770	3,400	5,591	3,175	116,974	245,571	14,711	8,145	26,872	567,208
1969-70	149,036	3,505	5,698	3,628	126,669	280,757	15,120	9,253	31,579	625,244
1970-71	171,548	4,246	6,348	3,457	153,658	312,111	17,369	10,880	35,996	715,613
1971-72	196,361	4,618	7,857	4,528	184,975	387,538	17,284	12,965	42,367	858,493
1972-73	207,277	4,778	10,055	4,386	192,244	435,404	18,185	13,759	50,973	937,061

(a) Includes fees for advertisements in telephone directories, proceeds of sales of fixed assets, telephone service connection fees and telex call fees.

Expenses

This table shows the operating and maintenance expenses of the Postmaster-General's Department as taken from successive Profit and Loss Statements.

**POSTMASTER-GENERAL'S DEPARTMENT: EXPENSES, BY SOURCE
AUSTRALIA
(\$'000)**

Year	Postal service			Telecommunications service			Total
	Operating maintenance and general	Carriage of mail	Depreciation, super-annuation, long service leave and interest	Operating and general	Main-tenance of plant	Depreciation, super-annuation, long service leave and interest	
1963-64	69,655	26,682	9,284	62,651	58,290	103,325	329,887
1964-65	75,987	28,710	10,111	69,637	60,269	121,118	365,833
1965-66	84,868	31,143	11,077	74,451	66,489	133,370	401,398
1966-67	95,775	32,395	15,398	83,154	74,063	152,205	452,991
1967-68	107,016	33,114	18,209	92,614	83,645	177,707	512,305
1968-69	106,682	35,678	21,277	101,861	95,022	198,651	559,171
1969-70	123,615	34,911	23,208	116,920	105,711	218,897	623,262
1970-71	144,352	37,722	29,014	135,321	121,731	249,116	717,256
1971-72	155,306	34,880	34,431	154,587	138,123	281,366	798,694
1972-73	173,265	35,404	38,719	176,607	160,182	311,662	895,838

Profit or loss

The following table shows the net results of the Department's operations for the year 1972-73 together with summarised particulars for the year 1971-72.

POSTMASTER-GENERAL'S DEPARTMENT
CONSOLIDATED STATEMENT OF PROFIT AND LOSS, AUSTRALIA
1971-72 AND 1972-73
 (\$'000)

	1971-72	1972-73		
	<i>All services</i>	<i>Postal service</i>	<i>Telecommuni- cations service</i>	<i>All services</i>
Earnings	858,493	226,496	710,565	937,061
Expenses—				
Operating, maintenance and general	482,896	208,669	336,788	545,457
Depreciation	139,740	5,380	148,716	154,096
Superannuation	32,970	13,147	23,758	36,905
Long service leave	11,713	4,589	8,208	12,797
<i>Total expenses</i>	<i>667,319</i>	<i>231,785</i>	<i>517,470</i>	<i>749,255</i>
Profit or loss before interest	191,174	—5,289	193,095	187,806
Interest	131,374	15,602	130,979	146,581
Profit or loss after interest	59,799	—20,891	62,115	41,224

Minus sign (—) denotes loss.

Fixed assets, Postmaster-General's Department

POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING FIXED ASSETS
1972-73
 (\$'000)

<i>Class of plant</i>	<i>Value at 1 July 1972</i>	<i>Additions during year</i>	<i>Instalments of plant written out</i>	<i>Value at 30 June 1973</i>
Telecommunications plant	3,001,200	392,073	37,077	(a)3,356,196
Postal plant	23,103	4,873	135	27,841
Engineers' moveable plant	51,761	8,664	3,060	57,366
Motor vehicles	37,325	9,265	8,016	38,573
Other plant and equipment	53,722	7,474	3,657	(b)56,538
Buildings	373,392	46,898	53	(c)420,236
Land	41,444	12,379	146	53,677
Total	3,581,946	481,626	52,144	(b)4,010,426

(a) Includes plant under construction valued at \$174,143,404. (b) Excludes \$1,001,180 adjustment for changed service lives. (c) Includes buildings under construction valued at \$25,611,215.

Postal services

Mail delivery network

MAIL DELIVERY NETWORK(a): 31 MARCH 1973

Number of mail delivery points:

State	Postmen's delivery	Roadside delivery	Private boxes	Private and free bags	Poste restante(t)
New South Wales	1,405,856	73,023	117,162	5,497	50,923
Victoria	1,002,656	46,879	70,094	4,599	37,220
Queensland	422,445	52,577	54,615	4,363	29,592
South Australia	341,854	2,326	48,302	4,842	21,939
Western Australia	274,354	8,367	33,452	758	16,832
Tasmania	88,555	4,708	13,226	1,475	15,271
Australia	3,535,720	187,880	336,851	21,534	171,827

(a) Statistics shown here are from the Mail Delivery Network Survey at 31 March 1973. (b) Delivery of mail at post offices.

Postal articles handled

The following two tables show the number of postal articles handled by the Australian Post Office, according to their State of origin. Each article is counted once only irrespective of the number of times it may be handled in transit.

POSTAL ARTICLES HANDLED(a): 1972-73
(‘000)

State	Posted for delivery within Australia				Posted for delivery overseas			
	Letters (b)	News-papers and parcels (c)	Registered articles (e)	Parcels (d)	Letters (b)	News-papers and parcels (c)	Registered articles (e)	Parcels (d)
New South Wales	836,863	123,720	10,258	2,810	51,051	4,278	477	1,020
Victoria	646,581	91,676	5,970	1,724	30,613	3,380	402	577
Queensland	313,028	31,701	2,862	1,190	9,298	705	87	68
South Australia	203,236	18,317	1,889	606	9,619	787	93	85
Western Australia	162,275	12,757	1,245	520	10,319	789	68	93
Tasmania	54,925	6,394	260	222	351	41	10	3
Australia	2,216,908	284,564	22,483	7,071	111,251	9,979	1,137	1,846

State	Received from overseas				Total postal matter dealt with			
	Letters (b)	News-papers and parcels (c)	Registered articles (e)	Parcels (d)	Letters (b)	News-papers and parcels (c)	Registered articles (e)	Parcels (d)
New South Wales	75,380	8,154	780	1,586	963,294	136,153	11,515	5,416
Victoria	49,586	5,838	548	724	726,780	100,894	6,919	3,025
Queensland	8,215	2,255	156	34	330,542	34,661	3,106	1,292
South Australia	5,745	1,731	85	30	218,600	20,834	2,066	722
Western Australia	6,860	2,827	168	77	179,453	16,372	1,481	690
Tasmania	1,052	425	88	4	56,328	6,859	358	228
Australia	146,837	21,230	1,825	2,455	2,474,996	315,774	25,445	11,372

(a) Number of distinct articles handled. (b) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (c) Includes newspapers and postal articles not included in letter mail. (d) Includes registered, cash on delivery and duty parcels. (e) Includes registered articles other than parcels.

TRANSPORT AND COMMUNICATION

POSTAL ARTICLES HANDLED(a): AUSTRALIA
(^{'000})

Year	Newspapers and parcels(c)			Registered articles(c)	Total postal articles handled
	Letters(b)	parcels(c)	Parcels(d)		
1968-69	2,205,525	407,922	22,092	12,748	2,648,287
1969-70	2,410,300	336,392	23,682	13,104	2,783,478
1970-71	(f)2,436,846	(f)330,858	24,950	13,234	2,805,887
1971-72	2,429,041	300,981	24,574	12,166	2,766,762
1972-73	2,474,996	315,774	25,445	11,372	2,827,587

(a) Number of distinct articles handled. (b) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (c) Includes newspapers and postal articles not included in letter mail. (d) Includes registered, cash on delivery and duty parcels. (e) Includes registered articles other than parcels. (f) Comparable only with previous year.

During 1972-73 the cost of the carriage of mails, as disclosed by the Profit and Loss Statement of the Postal Service, was as follows: road, \$16,118,023; railway, \$3,696,542; sea, \$833,609; air—internal, \$4,097,840; overseas, \$10,658,346; total, \$35,404,360.

MONEY ORDERS AND POSTAL ORDERS: TRANSACTIONS, AUSTRALIA

Year	Money orders(a)			Postal orders		
	Issued		Total commission received	Issued		Fee
	Number	Value		Number	Value	
	'000	\$'000	\$'000	'000	\$'000	\$'000
1968-69	9,672	209,868	2,637	13,525	27,262	772
1969-70	9,153	175,446	2,640	14,866	31,431	861
1970-71	7,353	161,119	3,031	(b)16,732	44,961	1,193
1971-72	5,677	143,167	2,808	17,289	55,784	1,779
1972-73	5,151	144,896	2,807	16,787	57,475	1,903

(a) Money orders issued for payment in Australia and overseas. (b) Postal orders for \$9 and \$10 were introduced in October 1970.

Of the total money orders issued in Australia during 1972-73, 4,704,725 valued at \$139,665,441 were payable in Australia, and 446,754 valued at \$5,230,774 were payable overseas. Of the total money orders paid in Australia during 1972-73, 4,914,748 (\$138,553,414) were issued in Australia, and 184,821 (\$4,135,235) were issued overseas.

Of the total postal orders paid in Australia during 1972-73 (16,787,449 valued at \$57,475,037), 12,700,179 (\$46,382,242) were paid in the State in which issued, and 3,883,361 (\$10,543,988) were paid in States other than those in which issued.

Internal telecommunication services

A brief history of the development of telecommunications in Australia is shown on pages 378-82 of Official Year Book No. 59. Common internal telecommunication operations now comprise telephone, telegram and telex services.

Wire and pole routes

At 30 June 1973 there were 22,791,748 pair kilometres of cable and 780,501 pair kilometres of aerial wire used for telecommunication purposes in Australia. The aerial wires are mounted on 158,324 kilometres of pole routes.

Coaxial cable and broadband relay systems

In recent years trunk telephone, telegraph and television channels have been increasingly provided by coaxial cable and radio relay systems. Broadband radio relay systems and coaxial cables are an alternative means of providing transmission facilities, each radio bearer being similar in carrying capacity to a coaxial tube. At 30 June 1973 there were 29,817 tube kilometres of coaxial cable and 87,169 bearer kilometres of radio relays in operation.

Telephone services in operation

Increasing use of the telephone by the community has resulted in a demand for additional telephone services. The volume of internal telephone traffic has consistently expanded, trunk line calls having the fastest rate of growth.

The following table shows the number of services in operation in each State at 30 June 1973 classified according to type of service, type of exchange to which connected, and location. Telephone services in metropolitan areas are defined as those connected to exchanges situated within 24 kilometres of the General Post Office in Sydney and Melbourne and within 16 kilometres of the General Post Office in Brisbane, Adelaide, Perth and Hobart.

Definitions of terms used in the following table

Ordinary exchange services are services which provide direct access to the exchange system by means of exclusive use of an exchange line.

Duplex services provide for two subscribers sharing a single exchange line, and preserve individual calling, separate metering and secrecy conditions. Duplex services are counted as two services.

Party line services are other shared services involving any number of subscribers, and are counted as one service for one exchange line.

Private branch exchange services are services which provide for any number of extension lines to operate through a switchboard (either automatic or manual) into the exchange system. The relevant figure is the number of exchange lines (as distinct from extension lines). A service with six exchange lines and fifty extension lines is shown as six services.

Public telephones are telephones installed in public thoroughfares and other approved places for the use of the public generally (leased company coin telephones and 'red phones' are not included).

TELEPHONE SERVICES IN OPERATION: 30 JUNE 1973

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Type of service—							
Ordinary exchange services	1,077,370	849,683	346,836	239,467	192,596	77,555	2,783,507
Duplex services	88	..	6	2	144	10	250
Party line services	3,389	1,033	2,528	995	894	63	8,902
Private branch exchange services	130,165	89,993	32,758	35,178	29,338	5,637	323,069
Public telephones	12,098	7,635	4,919	3,045	2,568	1,077	31,342
Connected to—							
Automatic exchanges	1,159,083	908,175	342,370	260,787	213,092	80,410	2,963,917
Manual exchanges	64,027	40,169	44,677	17,900	12,448	3,932	183,153
Located in—							
Metropolitan areas	741,805	614,341	184,143	177,508	153,611	32,181	1,903,589
Country areas	481,305	334,003	202,904	101,179	71,929	52,161	1,243,481
Total	1,223,110	948,344	387,047	278,687	225,540	84,342	3,147,070

TELEPHONE SERVICES IN OPERATION: AUSTRALIA

Services connected to—	30 June—				
	1969	1970	1971	1972	1973
Metropolitan exchanges—					
Automatic	1,548,479	1,663,849	1,754,872	1,822,722	1,903,589
Country exchanges—					
Automatic	681,668	778,651	859,202	949,227	1,060,328
Manual	281,084	261,168	242,936	205,818	183,153
All exchanges—					
Automatic	2,230,147	2,442,500	2,614,074	2,771,949	2,963,917
Manual	281,084	261,168	242,936	205,818	183,153
Total services	2,511,231	2,703,668	2,857,010	2,977,767	3,147,070

Telephone instruments

TELEPHONE INSTRUMENTS IN SERVICE
(^{'000})

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1969	1,444	1,080	423	321	232	98	3,599
1970	1,575	1,182	452	344	256	104	3,913
1971	1,683	1,240	475	360	285	114	4,157
1972	1,814	1,294	498	377	304	113	4,400
1973	1,913	1,370	532	399	326	118	4,659
Number at 30 June 1973 per 100 population	39.3	38.2	27.8	31.1	30.5	29.6	35.5

Internal telephone traffic

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA

Year	Effective paid local calls		Trunk line calls		Total calls '000
	Total '000	Per service number	Total '000	Per service number	
1968-69	2,442,000	1,004	172,200	71	2,614,200
1969-70	2,662,000	1,021	198,400	76	2,860,400
1970-71	2,848,000	1,024	225,300	81	3,073,300
1971-72	2,996,000	1,024	248,700	85	3,244,700
1972-73	3,146,000	1,027	276,300	90	3,422,300

Subscriber trunk dialling (S.T.D.) facilities were introduced during the year 1961-62 from Canberra to the Sydney network and from Warragul (Victoria) to Melbourne. At the end of June 1973 subscriber trunk dialling was in operation at 2,104 exchanges, connected to approximately 2,729,515 services.

Internal telegram traffic

Telegrams can be lodged at any post office, telephone office or from any public telephone equipped for multi-coin operation. In addition, telegrams can be despatched from any subscriber's telephone or telex service. The number of telegrams of various types transmitted within Australia is set out below.

INTERNAL TELEGRAM TRAFFIC: AUSTRALIA
(^{'000})

Year	Ordinary (a)	Urgent	Press	Letter- grams	Meteoro- logical service	Service	Total telegrams
1968-69	18,543	440	68	33	1,068	718	20,869
1969-70	18,217	454	63	32	1,040	754	20,560
1970-71	16,265	436	63	23	1,099	765	18,651
1971-72	15,401	397	51	20	1,085	781	17,735
1972-73	15,588	489	43	13	1,126	780	18,037

(a) Includes radiograms.

Telex network

Particulars of the operations of the telex network, which are additional to the telegraph traffic shown above, are as follows:

**TELEX NETWORK SERVICES AND INTERNAL
CALLS, AUSTRALIA**

<i>Year</i>	<i>Services at end of year</i>	<i>Internal calls during year</i>
1968-69	5,067	9,977,018
1969-70	6,430	12,092,737
1970-71	7,988	14,246,157
1971-72	9,235	15,868,800
1972-73	10,774	17,992,780

Development of telecommunications in Australia

An article dealing with the development of telecommunications in Australia appeared in Year Book No. 59, pages 378-84.

Overseas telecommunication services

The Overseas Telecommunications Commission (Australia) is the authority responsible for the establishment, maintenance and operation of telecommunication services between Australia and other countries, with ships at sea and to and between Australia's external Territories.

The Commission was established under the *Overseas Telecommunications Act* 1946. This Act implemented, in Australia, a recommendation of the 1945 Commonwealth Telecommunications Conference for national ownership of the external telecommunications services of the British Commonwealth countries concerned. (Details of overseas communication systems operating in Australia prior to 1946 and developments leading to the establishment of the Commission were published in Year Book No. 37, pages 220-4.)

With most other Commonwealth countries, the Commission is a member of the Commonwealth Telecommunications Organisation, the purpose of which is to promote the efficient exploitation and development of the Commonwealth external telecommunications system; it is a three-tier structure comprising the Commonwealth Conference on Telecommunications, the Commonwealth Telecommunications Council and the Commonwealth Telecommunications Bureau. The Commonwealth Telecommunications Council is the continuing management body of the Organisation with the role of promoting the purpose of the Organisation and carrying out the policies agreed by Governments. The Commonwealth Telecommunications Bureau is the Secretariat for the Organisation and functions under the control and direction of the Council.

The 1972 Commonwealth Telecommunications Conference reviewed the working of the Commonwealth Telecommunications Organisation in the light of experience and recommended new collaborative financial arrangements governing the use of the Commonwealth telecommunications systems. With the adoption of the recommendations of the 1972 Conference by member Governments, the Commonwealth Telecommunications Organisation Financial Agreement 1969 was replaced on 1 April 1973 by the Commonwealth Telecommunications Organisation Financial Agreement 1973.

In association with the Post Office within Australia and with communication carriers in other Commonwealth and foreign countries the Commission provides public message telegram, telephone, telex, phototelegram, leased circuit and switched data services to most countries and places throughout the world. International television programs are provided by means of satellite communication facilities with countries operating earth stations.

The Commission, in partnership with the overseas telecommunications authorities of Britain, Canada and New Zealand, installed a large capacity telephone cable across the Pacific Ocean, connecting Australia, New Zealand and Canada via Suva and Honolulu. The cable (COMPAC) was opened in December 1963 and forms part of a British Commonwealth large capacity cable scheme, in which a complementary cable between Britain and Canada (CANTAT) was officially opened in December 1961. The two cable connections are linked across Canada by a microwave system. The Commonwealth cable system feeds into the United States of America network at Hawaii and into the European network at London.

The South-East Asia cable project (SEACOM), extending the large capacity telephone cable system from Sydney to Singapore and Kuala Lumpur via Cairns, Madang, Guam, Hong Kong, and Kota Kinabalu, was opened for service on 30 March 1967.

The Commonwealth Cable Management Committee, comprising representatives of Britain, Canada, Australia, New Zealand, Malaysia and Singapore, administers COMPAC and SEACOM.

The Commission is a joint partner with the New Zealand Post Office in the provision of a new large capacity telephone cable between Australia and New Zealand. Known as the TASMAN cable system and scheduled for completion in 1976, the 640 circuit cable will supplement existing capacity.

Additionally the Commission has acquired a 6.9 per cent interest in a new 845 circuit submarine cable, jointly owned with the American and Japanese international carriers, linking the United States mainland, Hawaii, Guam and Japan, the laying of which will commence in May 1975.

In August 1964, Australia became a foundation member of the International Satellite Organisation (INTELSAT), a partnership of nations concerned in establishing a global communications, satellite system. Australia has an ownership share of 3.07 per cent making it the seventh largest contributor among the 85 INTELSAT member countries, and through the Commission Australia is represented on the INTELSAT board of governors, which is the management board of INTELSAT.

The Interim Agreements under which INTELSAT has operated in the period since 1964 were superseded in February 1973 by permanent arrangements, which are embodied in two inter-related Agreements. The first, an inter-governmental agreement signed by the Australian Government, outlines the principles and objectives of the organisation and defines the basic organisational arrangements. The second, the Operating Agreement, signed by the Commission as the designated Australian telecommunications entity, provides the basis for the operation and management of the INTELSAT system.

The INTELSAT system comprises satellites located over the Atlantic, Pacific and Indian oceans. At the beginning of 1974 these satellites were providing the equivalent of 4,918 two-way telephone circuits and on demand television service between 86 earth stations located in 52 countries.

In March 1968, a satellite earth station at Moree, New South Wales, owned and operated by the Commission, commenced commercial communications, including a capability for television transmission/reception. This station, which operates to the Pacific Ocean INTELSAT satellite positioned in a stationary orbit 35,900 kilometres above the equator, was the first in Australia constructed as a 'standard' station of the INTELSAT network.

The completion of the new standard earth stations at Carnarvon (Western Australia) and Ceduna (South Australia) in 1969 and a significant expansion of facilities at the earth station at Moree (N.S.W.) provided increased telecommunication services via satellite.

The original non-standard station in Carnarvon (opened in 1967) is now used solely for telemetry, tracking and command functions under contract with the INTELSAT organisation. There is provision for four such stations to be spaced around the world so that any INTELSAT satellite can be viewed and controlled no matter where it may be. These stations keep a continuous check of the position of each satellite and its functioning by means of signals transmitted by the satellite. When required, signals are transmitted to a satellite to control the direction of its antenna and to change its orbital position. During launches, these stations transmit the commands which fire the satellite motor to place it in final orbit.

International telecommunication traffic

Particulars of the volume of international telegraph services, originating and terminating in Australia, during the years ended 31 March 1972 and 1973 are shown in the following table.

INTERNATIONAL TELEGRAPH SERVICES: AUSTRALIA, YEARS ENDED
31 MARCH 1972 AND 1973
(*000 words)

Class of traffic	Words transmitted					
	From Australia		To Australia		Total	
	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73
Letter	30,004	31,558	24,684	24,385	54,688	55,943
Ordinary	27,528	27,891	25,344	23,888	52,872	51,779
Press	3,004	2,410	2,688	2,580	5,691	4,990
Greetings	1,689	1,696	1,918	2,007	3,607	3,703
Urgent	1,907	1,862	1,485	1,302	3,392	3,164
Other	731	518	1,995	2,265	2,726	2,783
Total	64,862	65,935	58,114	56,427	122,976	122,362

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the years ended 31 March 1972 and 1973.

INTERNATIONAL TELECOMMUNICATION SERVICES OTHER THAN TELEGRAPHIC SERVICES: AUSTRALIA, YEARS ENDED 31 MARCH 1972 AND 1973

Service	Transmissions					
	From Australia		To Australia		Total	
	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73
Telephone . . . '000 paid minutes	7,206	9,000	7,090	8,426	14,296	17,426
Telex '000 paid minutes	4,238	5,181	4,108	4,986	8,346	10,167
Television programs . . . paid minutes	2,058	1,097	1,809	4,226	3,867	5,323
Phototelegrams pictures	1,020	871	1,816	2,567	2,835	3,438

Coastal stations

The Overseas Telecommunications Commission operates fourteen coastal radio stations at points around the Australian coast, three on the Papua New Guinea coast and one at Norfolk Island. During the year ended 31 March 1973 the coastal radio service handled 6,338,000 paid words to ships and 4,130,000 words from ships. Ship calls over the radiotelephone service extended over 182,000 paid minutes.

Radiocommunication stations authorised

At 30 June 1973 there were 185,103 civil radiocommunication stations authorised for operation in Australia and its Territories. Of these, 6,567 were stations established at fixed locations, 15,834 were land stations which were established at fixed locations for communication with mobile stations, 29 space and broadcasting stations, 156,110 were mobile stations and 6,563 amateur stations. Particulars of broadcasting stations and broadcast listeners' licences are shown on pages 408 and 410 respectively.

BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act 1942-1973* and comprise the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service, and the Commercial Television Service. General control of these services is a function of the Australian Broadcasting Control Board. Licence fees for commercial broadcasting and television stations are payable under the *Broadcasting Stations Licence Fees Act 1964-1973* and the *Television Stations Licences Fees Act 1964-1966* respectively.

Particulars of the composition, functions and responsibilities of the Australian Broadcasting Control Board are shown in the Twenty-sixth Annual Report for the year ended 30 June 1974.

Broadcasting services

The National Broadcasting Service

In sound broadcasting the programs of the National Broadcasting Service are provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department.

Technical facilities. At 30 June 1973 the National Broadcasting Service comprised eighty-three transmitting stations, of which seventy-seven were medium frequency and six high frequency.

The medium-frequency transmitters operate in the broadcast band 530 to 1,590 kilohertz. The high-frequency stations, using frequencies within the band of three to thirty megahertz, provide services to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland.

Many of the programs provided by country stations are relayed from the capital cities, high-quality program transmission lines being used for the purpose. A number of program channels are utilised to link national broadcasting stations in the capital cities of Australia, and when necessary, this system is extended to connect both the national and commercial broadcasting stations.

At 30 June 1973 sixty-five of the Australian medium-frequency stations were situated outside the six State capital cities.

Program facilities. The programs of the Australian Broadcasting Commission cover a wide range of activities. The proportion of broadcasting time allocated on metropolitan stations to the various types of program during 1972-73 was as follows: classical music, 24.2 per cent; entertainment, 31.3 per cent; news, 9.0 per cent; sporting, 5.7 per cent; light music, 1.9 per cent; spoken word, 7.3 per cent; drama and features, 3.9 per cent; education, 3.3 per cent; Parliament, 4.6 per cent; religious, 3.0 per cent; young people's programs, 1.4 per cent; rural, 2.2 per cent; and presentation, 1.5 per cent. Further particulars of the operations of the Australian Broadcasting Commission in respect of music, drama and features, youth education, talks, rural broadcasts, news, and other activities are shown in the Forty-first Annual Report of the Australian Broadcasting Commission.

The Commercial Broadcasting Service

Commercial broadcasting stations are operated under licences granted and renewed by the Minister for the Media after taking into consideration any recommendations which have been made by the Broadcasting Control Board. The initial period of a licence is five years and renewals are granted for a period of one year.

The fee payable for a licence is \$200 on the grant of the licence, and thereafter \$200 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Broadcasting Stations Licence Fees Act 1964-73*, during the preceding financial year—1 per cent up to \$500,000; 1.5 per cent \$500,001 to \$1,000,000; 2 per cent \$1,000,001 to \$1,500,000; 2.5 per cent \$1,500,001 to \$2,000,000; 3 per cent \$2,000,001 to \$2,500,000; 3.5 per cent \$2,500,001 to \$3,000,000; 4 per cent \$3,000,001 to \$3,500,000; and 4.5 per cent over \$3,500,000.

Overseas Broadcasting Service

There are seven high-frequency stations at Shepparton and two at Lyndhurst, Victoria, and three repeater stations at Darwin, Northern Territory, which provide the overseas service known as 'Radio Australia'. As in the case of the National Broadcasting Service, these stations are maintained and operated by the Postmaster-General's Department, and their programs are arranged by the A.B.C. The programs, which give news and information about Australia presented objectively, as well as entertainment, are directed mainly to South-East Asia and the Pacific. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

Broadcasting stations

BROADCASTING STATIONS: 30 JUNE 1973

Type of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
National—									
Medium frequency .	20	5	18	10	14	4	4	2	77
High frequency .	1	2	2	..	1	..	..	..	6
Overseas (high frequency) .	..	9	..	..	..	..	3	..	12
Commercial (medium frequency) .	39	20	26	8	14	8	2	1	118
Total .	60	36	46	18	29	12	9	3	213

Tables showing the call sign, location, frequency, and aerial power of national and commercial broadcasting stations in operation at 30 June 1972 are shown in *Transport and Communication*, Bulletin No. 63.

Television services

The National Television Service

The National Television Service is provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department. The first national station (ABN Sydney) commenced regular transmission on 5 November 1956. At 30 June 1973 fifty-three stations were operating, excluding forty-six translator stations.

The television programs provided by the Australian Broadcasting Commission cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30 June 1973 was as follows: drama, 21.9 per cent; public interest, 12.6 per cent; sporting, 12.6 per cent; news, 6.2 per cent; variety and acts, 6.4 per cent; education, 27.4 per cent; musical performances, 0.5 per cent; religious, 1.3 per cent; rural, 0.6 per cent; special arts and aesthetics, 2.4 per cent; presentation, 6.1 per cent. The average weekly transmission time for the fifty-three national television transmitters was eighty-eight hours during the year ended 30 June 1973.

The Commercial Television Service

Commercial television stations are operated under licences granted and renewed by the Minister for the Media. The first commercial station (TCN Sydney) commenced regular transmission on 16 September 1956. At 30 June 1973 forty-eight television stations were operating.

The initial grant of a licence is for a period of five years and thereafter the licence is renewable annually. The fee payable is \$200 for the first year and thereafter \$200 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Television Stations Licence Fees Act 1964-1966*, during the preceding financial year—1 per cent up to \$1,000,000; 2 per cent \$1,000,001 to \$2,000,000; 3 per cent \$2,000,001 to \$4,000,000; and 4 per cent over \$4,000,000.

Colour television

The Government has announced that colour television will be introduced into Australia from 1 March 1975.

Television stations

During the year ended 30 June 1973, one new national television station commenced regular transmission, namely ABAD Channel 7, Alice Springs in the Northern Territory.

A permanent high-power 100 kw television transmitter on Mount Bellenden-Ker, near Cairns, Queensland, came into service replacing the temporary 5 kw transmitter. Eight new television translator stations went into service for the Australian Broadcasting Commission. Ten remote communities are now provided with A.B.C. programs from tape recorded at Townsville and Perth. The following table shows the number of television stations in operation at 30 June 1973.

TELEVISION STATIONS: 30 JUNE 1973

Type of station and location	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
National—									
Metropolitan . . .	1	1	1	1	1	1	1	1	8
Country	12	7	13	3	7	2	1	..	45
Total, National .	13	8	14	4	8	3	2	1	53
Commercial—									
Metropolitan . . .	3	3	3	3	2	1	1	1	17
Country	11	6	8	2	3	1	..	..	31
Total, Commercial	14	9	11	5	5	2	1	1	48
All stations . . .	27	17	25	9	13	5	3	2	101

Tables showing the call sign, location, frequencies, polarisation, aerial power, and weekly hours of transmission of National and Commercial television stations in operation at 30 June 1972 are shown in *Transport and Communication Bulletin No. 63*.

Broadcast listeners' and television viewers' licences

Note. As from 17 September 1974 all requirements for broadcast listeners' and television viewers' licences fees were abolished. The following information advances by one year the information given in Year Book No. 59.

Broadcast listeners', television viewers', and combined receiving licences are issued at post offices in accordance with the provisions of the *Broadcasting and Television Act 1942-73*, which stipulates that, except as prescribed, a person shall not use, maintain or have in his possession a broadcast or television receiver unless there is in force a licence which applies to that receiver. A broadcast listener's licence or a television viewer's licence, whichever is appropriate, authorises the operation of any broadcast receiver or any television receiver, which is: (a) in the possession of the holder of a licence, or of a member of his family, at the address specified in the licence and is ordinarily kept at that address; (b) installed in a vehicle which is ordinarily in the possession of that holder, or a member of his family, and is ordinarily kept at that address when not in use. A person who has both broadcast and television receivers at the one address may take out a combined receiving licence, provision for which was introduced by legislation effective from 1 April 1965.

A licence may be granted free of charge to a blind person over 16 years of age or to a person or authority conducting a school, and at a concession to certain classes of pensioners. Receivers provided for the use of inmates of an approved institution (including a hospital) are covered by an appropriate licence held by the institution. Persons residing in Zone 2 may also be granted a broadcast listener's licence at a reduced rate. Zone 1 is the area within 402 kilometers of specified broadcasting stations and Zone 2 is the remainder of Australia.

Each broadcast or television receiver let out on hire (except under a hire purchase agreement) must be covered by a hirer's licence held by the person or firm from whom the receiver is hired. The keeper of a lodging-house (which includes a hotel, motel, boarding-house, or any other premises where lodging or sleeping accommodation is provided for reward) must take out a lodging-house licence for each broadcast or television receiver provided by the proprietor in any room or part of the lodging-house occupied or available for occupation by lodgers.

The fees payable for the various classes of licence from 1 October 1973 to 17 September 1973 were as follows:

BROADCAST LISTENERS' AND TELEVISION VIEWERS' LICENCES RATES

Licence		Ordinary	Pensioner
		rate	rate
		\$	\$
Broadcast listener's licence and hirer's licence for a broadcast receiver	Zone 1	8.00	1.00
	Zone 2	4.25	0.70
Lodging-house licence for a broadcast receiver	Zone 1	8.00	..
	Zone 2	4.25	..
Television viewer's licence and hirer's licence for a television receiver		19.00	3.00
Lodging-house licence for a television receiver		19.00	..
Combined receiving licence		26.50	4.00

Numbers of broadcast listeners' and television viewers' licences

BROADCAST LISTENERS' LICENCES IN FORCE(a)

30 June—	N.S.W.(b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1969	952,634	728,647	382,869	297,877	189,633	78,552	2,630,212
1970	960,223	747,508	384,951	302,519	196,679	78,513	2,670,393
1971	959,036	754,762	394,669	310,485	200,570	79,417	2,698,939
1972	996,822	758,042	405,181	315,612	205,230	77,096	2,757,983
1973	996,742	776,171	416,572	332,411	211,444	81,129	2,814,469

(a) Includes short-term hirers' licences and combined broadcast listeners' and television viewers' licences. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

TELEVISION VIEWERS' LICENCES IN FORCE(a)

30 June—	N.S.W.(b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1969	993,145	747,080	367,289	280,420	183,307	78,216	2,649,457
1970	1,031,739	782,819	372,609	292,359	197,692	80,756	2,757,974
1971	1,042,724	806,077	399,947	303,252	209,882	83,286	2,845,168
1972	1,088,648	811,573	418,688	318,357	218,783	82,609	2,938,658
1973	1,085,917	837,304	433,559	339,022	231,041	85,990	3,012,833

(a) Includes short-term hirers' licences and combined broadcast listeners' and television viewers' licences. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

The numbers of combined receiving licences included in both of the foregoing tables as at 30 June 1972 are: New South Wales, 902,068; Victoria, 722,583; Queensland, 350,512; South Australia, 262,502; Western Australia, 182,979; Tasmania, 72,785; Australia, 2,493,429.

Television hirers' licences (including short term) (included above) at 30 June 1972 were: New South Wales, 97,241; Victoria, 42,091; Queensland, 43,953; South Australia, 54,329; Western Australia, 33,979; Tasmania, 6,584; Australia, 278,177.

Revenue received from broadcast and television licence fees

The following table shows the revenue received from broadcast listeners' licence fees, television viewers' licence fees and fees from combined licences.

REVENUE RECEIVED FROM BROADCAST AND TELEVISION LICENCE FEES
(\$'000)

Year	N.S.W.(a)	Vic.	Qld	S.A.(b)	W.A.	Tas.	Aust.
1968-69	16,700	12,747	6,306	4 930	3,127	1,314	45,125
1969-70	17,782	13,795	6,694	5,238	3,483	1,397	48,389
1970-71	17,912	14,023	6,921	5,586	3,689	1,429	49,562
1971-72	22,445	17,165	8,807	7,057	4,642	1,670	61,785
1972-73	23,946	18,792	9,609	7,720	5,114	1,871	67,050

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. .

CHAPTER 13

SOCIAL SECURITY AND WELFARE SERVICES

This chapter describes social welfare services provided by the Australian Government (through the Departments of Social Security and Aboriginal Affairs), the State Governments and voluntary welfare organisations. Details of services administered by the Australian Departments of Health and Repatriation are given in the Public Health and Repatriation chapters respectively. For information on the many important welfare services provided by State and local governments, especially in the fields of child and Aboriginal welfare, reference should be made to the State Year Books and annual statistical bulletins and the annual reports of the State departments concerned. Details on pension and superannuation schemes for government and semi-government employees, mine workers, parliamentarians, and employees of private business are included in the chapter Private Finance.

Further information on subjects dealt with in this chapter is included in the annual bulletins *Australian National Accounts* (7.1); *Public Authority Finance: Authorities of the Australian Government* (5.12); *Public Authority Finance: State and Local Government Authorities* (5.43); *Public Authority Finance: State Governments; Social Services* (5.37); *Public Authority Finance: Outlay on Aboriginal Affairs by Authorities of the Australian Government* (5.42). Current and summarised information on Australian Government social services is contained in the *Quarterly Summary of Australian Statistics* (1.3) and the *Monthly Review of Business Statistics* (1.4).

Australian Government expenditure on social security services

This section deals with various government payments for the relief of the aged, indigent, infirm, widowed, orphaned and unemployed, assistance to families, etc. For summary statements of cash payments to persons made by public authorities under various functional heads, see *Public Authority Finance* and other annual bulletins mentioned above.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT, SOCIAL SECURITY CASH BENEFITS TO PERSONS, 1972-73 (\$'000)

	N.S.W. (a)	Vic.	Qld	S.A. (a)	W.A.	Tas.	N.T. (a)	A.C.T. (a)	Abroad	Total
Assistance to aged persons—										
Age pensions	327,104	236,562	139,791	85,729	64,896	27,809	1,893	2,931	1,035	887,750
Delivered meals	197	188	53	78	50	21	..	..	..	587
Personal care	792	994	583	504	278	119	1	3	..	3,273
<i>Total</i>	<i>328,093</i>	<i>237,744</i>	<i>140,427</i>	<i>86,311</i>	<i>65,224</i>	<i>27,949</i>	<i>1,894</i>	<i>2,934</i>	<i>1,035</i>	<i>891,610</i>
Assistance to incapacitated and handicapped persons—										
Invalid pensions	78,635	41,153	30,166	15,896	11,292	5,847	990	599	121	184,699
Sheltered employment allowances	607	..	..	384	170	..	..	..	..	1,161
Handicapped children's benefits	173	78	46	69	42	19	..	3	..	429
Rehabilitation services	1,327	1,503	621	542	529	133	..	4	..	4,658
<i>Total</i>	<i>80,742</i>	<i>42,734</i>	<i>30,833</i>	<i>16,891</i>	<i>12,033</i>	<i>5,999</i>	<i>990</i>	<i>606</i>	<i>121</i>	<i>190,947</i>
Assistance to unemployed and sick persons—										
Unemployment benefits	14,065	12,074	6,702	5,107	6,253	2,095	149	108	..	46,553
Sickness benefits	10,056	7,923	3,504	2,226	1,840	792	90	180	..	26,610
Special benefits	1,845	1,010	753	310	279	129	20	23	..	4,368
<i>Total</i>	<i>25,966</i>	<i>21,007</i>	<i>10,958</i>	<i>7,643</i>	<i>8,372</i>	<i>3,016</i>	<i>259</i>	<i>310</i>	<i>..</i>	<i>77,531</i>
Assistance to ex-servicemen(b)—										
War and service pensions and allowances	104,826	78,896	50,460	25,917	22,855	12,683	..	258	1,405	297,303
Other benefits(c) . . . . .	..	..	..	..	..	..	..	..	..	3,715
<i>Total</i>	<i>104,826</i>	<i>78,896</i>	<i>50,460</i>	<i>25,917</i>	<i>22,855</i>	<i>12,683</i>	<i>..</i>	<i>258</i>	<i>1,405</i>	<i>301,018</i>
Assistance to widowed and deserted spouses—										
Widows' pensions	49,413	39,071	20,560	14,364	10,064	5,136	774	899	223	140,505
Assistance to deserted wives	2,290	2,861	1,736	776	1,746	338	..	..	..	9,748
<i>Total</i>	<i>51,703</i>	<i>41,932</i>	<i>22,296</i>	<i>15,140</i>	<i>11,810</i>	<i>5,474</i>	<i>774</i>	<i>899</i>	<i>223</i>	<i>150,253</i>
Assistance to families and children—										
Child endowment	86,250	71,683	37,888	22,780	21,407	8,185	2,093	3,546	59	253,890
Maternity allowances	2,832	2,150	1,197	661	680	241	90	117	2	7,970
<i>Total</i>	<i>89,082</i>	<i>73,833</i>	<i>39,085</i>	<i>23,441</i>	<i>22,087</i>	<i>8,426</i>	<i>2,183</i>	<i>3,663</i>	<i>61</i>	<i>261,860</i>

For footnotes see end of table

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT, SOCIAL SECURITY
CASH BENEFITS TO PERSONS, 1972-73—*continued*
(S'000)

	N.S.W. (a)	Vic.	Qld	S.A. (a)	W.A.	Tas.	N.T. (a)	A.C.T. (a)	Abroad	Total
Other social security and welfare programs—										
Funeral benefits	615	409	247	158	101	44	..	5	..	1,579
Telephone rental concessions	1,879	1,451	669	516	384	136	..	..	..	5,035
Compassionate allowances	25	23	49	4	1	1	..	1	..	104
Other(c) . . . . .	..	..	..	..	..	..	..	..	..	216
<i>Total</i>	2,519	1,883	965	678	486	181	..	6	..	6,934
Health benefits(d)	224,127	135,382	73,698	53,875	45,754	15,845	139	32,329	..	581,283
Total social security	907,058	633,411	368,722	229,896	188,621	79,573	6,239	41,005	2,845	2,461,436

(a) State totals for New South Wales and South Australia also include most of the unallocable expenditure on cash benefits to persons resident in the Australian Capital Territory and the Northern Territory respectively. (b) For details see Chapter 5, Repatriation. (c) Expenditures on this item are unallocable by States and are included in total only. (d) For details see page 433.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT, SOCIAL SECURITY
CASH BENEFITS TO PERSONS
(S'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Assistance to aged persons—					
Age pensions	(a)558,587	(a)641,982	582,889	680,322	887,750
Delivered meals . . . . .	..	196	341	338	587
Personal care . . . . .	..	1,133	1,592	1,830	3,273
<i>Total</i>	<i>n.a.</i>	<i>n.a.</i>	584,822	682,490	891,610
Assistance to incapacitated and handicapped persons—					
Invalid pensions	(e)	(e)	119,387	138,194	184,699
Sheltered employment allowances	288	436	590	742	1,161
Handicapped children's benefits	76	485	456	438	429
Rehabilitation services	2,123	2,403	3,107	3,945	4,658
<i>Total</i>	<i>n.a.</i>	<i>n.a.</i>	123,540	143,319	190,947
Assistance to unemployed and sick persons—					
Unemployment benefits	9,268	8,868	10,795	25,997	46,553
Sickness benefits	5,531	7,146	10,262	15,906	26,610
Special benefits	2,031	2,578	2,420	2,851	4,368
<i>Total</i>	16,830	18,592	23,477	44,754	77,531
Assistance to ex-servicemen(b)—					
War and service pensions and allowances	216,958	223,366	234,979	260,150	297,303
Other benefits	3,640	3,826	3,821	4,056	3,715
<i>Total</i>	220,598	227,192	238,800	264,206	301,018
Assistance to widowed and deserted spouses—					
Widows' pensions	69,080	81,753	90,514	104,627	140,505
Assistance to deserted wives	1,149	1,882	3,691	5,876	9,748
<i>Total</i>	70,229	83,635	94,205	110,503	150,253
Assistance to families and children—					
Child endowment	193,263	220,121	198,442	216,581	253,890
Maternity allowances	7,960	8,000	8,554	8,617	7,970
<i>Total</i>	201,223	228,121	206,996	225,198	261,860
Other social security and welfare programs—					
Funeral benefits	1,571	1,512	1,653	1,583	1,579
Telephone rental concessions	2,366	2,807	3,617	4,608	5,035
Emergency assistance to wool-growers(c) . . . . .	..	..	21,327	187	..
Compassionate allowances	94	94	91	98	104
Other	374	50	139	121	216
<i>Total</i>	4,405	4,463	26,827	6,597	6,934
Health benefits(d)	281,789	335,040	409,480	508,133	581,283
Total social security	1,356,150	1,543,669	1,708,148	1,985,200	2,461,436

(a) Includes invalid pensions. Separate figures are not available for years prior to 1970-71. (b) For details see Chapter 5, Repatriation. (c) For details see Chapter 22, Rural Industry. (d) For details see page 433. (e) Included in Age pensions—see footnote (a).

Australian Government social services

Under the provisions of Section 51 of the Constitution, the Australian Government is empowered to legislate on:

- '(xxiii) Invalid and old age pensions:
- '(xxiiiA) The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances;'

On 1 July 1947 with the passage of the *Social Services Consolidation Act 1947*, all Acts providing social service benefits were amalgamated. The Act is at present styled the *Social Services Act 1947-1974*.

Reciprocal social services agreements with other countries

New Zealand. An agreement between the Governments of Australia and New Zealand for reciprocity in social services came into operation on 3 September 1943 and was amended from 1 July 1949. The reciprocal arrangements cover age and invalid pensions, widows' pensions, child endowment, and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence. Residence in one country may be treated as residence in the other country in relation to entitlement to benefits in which a residential qualification applies. Persons from one country taking up a permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country. Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

United Kingdom. Under a reciprocal agreement on social services between the United Kingdom and Australia residence in one country may be treated as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies. Australians going to the United Kingdom for permanent residence are treated in the United Kingdom as if they have been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits. There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

Portability of Australian pensions

Pensions payable under the Social Services Act have continued for pensioners leaving Australia since 8 May 1973. Those who went to live overseas before that date may now also obtain pensions, subject to special conditions, as a result of legislation on 22 March 1974.

Social Security benefits provided

The social security benefits provided by the Australian Government under the *Social Services Act 1947-1974*, and the date on which each came into operation, are:

Age pension	1 July 1909
Invalid pension	14 October 1910
Allowances for wife and first child of pensioners who are invalided	8 July 1943
Allowances for second and subsequent children of pensioners who are invalided	11 October 1956
Allowances for wife and children of other age pensioners	14 October 1965
Guardians' allowances for widowed and other unmarried age and invalid pensioners with children in their care	14 October 1965
Special payments to a surviving pensioner	10 October 1968
Widows' pensions	30 June 1942
Supplementary assistance (age, invalid and widows' pensions)	15 October 1958
Supplementary allowance (payable to sickness bene- ficiaries after six weeks)	28 September 1970
Widows' pensions—allowances for second and sub- sequent children	2 October 1956
Funeral benefit	1 July 1943
Maternity allowance	10 October 1912
Child endowment	1 July 1941
Child endowment—student children	14 January 1964

Unemployment benefit	1 July 1945
Sickness benefit	1 July 1945
Special benefit	1 July 1945
Sheltered employment allowance	30 June 1967
Commonwealth Rehabilitation Service	10 December 1948
Training scheme for widow pensioners	27 September 1968
Wife's pension	5 October 1972
Supporting mother's benefit	3 July 1973
Double orphan's pension	9 October 1973

National health benefits

The national health benefits provided by the Australian Government under the *National Health Act 1953-1974* and the date on which each came into operation are:

Hospital benefit	1 January 1946
Hospital benefit for pensioners	1 July 1946
Medical benefit for pensioners	21 February 1951
Medical benefit	1 July 1953
Nursing home benefit	1 January 1963
Handicapped childrens benefit	1 January 1969
Subsidised health benefit	1 January 1970
Nursing home benefit for pensioners	1 January 1973
Domiciliary nursing care benefit	1 March 1973

Age and invalid pensions

Age pensions are payable to men, sixty-five years of age and over, and women, sixty years of age and over, who have lived in Australia continuously for at least ten years, which need not be immediately prior to the date of claim for a pension. If a person has completed five years, but not ten years, continuous residence, and has lived in Australia for periods which exceed a total of ten years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of ten years. Any periods of absence during which a person's home remains in Australia, and absences in certain other circumstances, are counted as residence, and any absence in an external Territory, while not counting as residence, does not interrupt continuity of residence in Australia. Residence in New Zealand or the United Kingdom may be treated as residence in Australia.

Invalid pensions are payable to persons, sixteen years of age and over, who have lived in Australia for a continuous period of five years (including certain absences) at any time, and who are permanently incapacitated for work to the extent of at least eighty-five per cent, or permanently blind. If the incapacity or blindness first occurred outside Australia, except during a temporary absence, the residence qualification is the same as for an age pension. Persons granted invalid pensions at or above the qualifying age for an age pension are generally those with insufficient residence to qualify for an age pension.

A wife's pension is payable to the wife of a pensioner not entitled, in her own right, to an age, invalid or service pension. There is no residence qualification to be met.

Current rates of pension. The maximum standard rate was increased to \$1,352 per annum (\$26.00 a week) from 4 April 1974. This is payable to a single, widowed or divorced pensioner, or a married pensioner whose spouse is not receiving a pension or a tuberculosis allowance. The standard rate may also be paid to each of a married pensioner couple who are living apart for an indefinite period due to illness or infirmity of either or both. The maximum rate for a married pensioner couple was increased to \$2,366 per annum (\$45.50 a week) from 4 April 1974 (i.e. \$1,183 per annum or \$22.75 a week each). For a married person whose spouse receives a tuberculosis allowance, or a service pension, the maximum rate is also \$1,183 per annum (\$22.75 a week).

Additional pension for each dependent child under 16 years is payable, subject to the means test, at the rate of \$260 per annum (\$5.00 a week). Widowed or other unmarried age or invalid pensioners with a dependent child may receive a guardian's allowance up to \$4 a week, or up to \$6 a week if the child is under 6 years of age or is an invalid child requiring full-time care. Guardian's allowance is also subject to the means test. Eligibility for the additional pension for children is extended to include a child over sixteen years, provided he is wholly or substantially dependent on the pensioner and is receiving full-time education at a school, college or university. Supplementary assistance of up to \$4 a week, subject to a special means test, is available to pensioners receiving the maximum standard rate pension if they pay rent or pay for board and lodging or for lodging.

At 30 June 1973, 452,407 age and 92,160 invalid pensioners in the standard rate category were receiving a pension of \$21.50 a week or more and 212,160 age and invalid pensioners were in receipt of supplementary assistance. In the married rate category 318,218 age and 40,723 invalid pensioners were receiving a pension of \$18.75 a week or more.

On the death of one member of a married pensioner couple the surviving pensioner spouse becomes entitled to receive, for up to six fortnightly instalments, the equivalent of the two pensions that would have been paid if the spouse had not died. For the purpose of this provision the term 'pensioner' includes a person in receipt of age, invalid, wife's or service pension; a rehabilitation allowance; or a sheltered employment allowance.

A table showing the maximum rates of pension operating since 1 July 1909 at dates prior to 14 October 1965 is included on page 608 of Year Book No. 51. Details of the respective rates and allowances payable since 14 October 1965 are included in subsequent Year Books.

Means test. Except for people aged 75 or over who are entitled to the age pension free of means test, age, invalid and wife's pensions (other than pensions paid to blind persons) are subject to a means test which applies to income and property. This is being removed progressively and will apply eventually only to female pensioners aged 60 to 64. The rate of pension payable in any case depends on the claimant's *means as assessed*. When calculating means as assessed assets or property owned by the applicant are equated with income by treating each complete \$20 of assets above \$400 as equivalent to an income of \$2 a year. This amount is the property component. Means as assessed may consist entirely of the property component, entirely of income, or of various combinations of property component and income. The annual maximum rate of pension is affected when means exceed the allowable sum of:

For a single, widowed or divorced person	\$1,040
For a married pensioner couple	\$1,794 (\$897 each)

The effect of the means test in the case of a single, widowed or divorced person, is to reduce the annual maximum standard rate of pension by half the amount of any means as assessed in excess of \$1,040. No pension is payable where the value of property is \$37,840 or more (\$42,000 or more if qualified for a guardian's allowance at the lower rate and \$44,080 if qualified for the guardian's allowance at the higher rate). Supplementary assistance is reduced by the amount by which means as assessed exceed \$52. For a pensioner couple, the combined maximum married rate of pension is reduced by half of any means as assessed in excess of \$1,794. No pension is payable where the value of property is \$66,080 or more.

Certain types of income are exempted. The main exemptions are: income from property; gifts or allowances from children, parents, brothers, or sisters; benefits from friendly societies; child endowment or other payments for children; Australian Government health benefits and amounts received from registered benefit organisations. A pensioner's income may also be reduced by up to \$312 per annum (\$6 a week) for each dependent child under sixteen years or full-time student.

A special concession is made available to recipients of superannuation pensions and annuities, the annual rate of such payments being converted to a property equivalent for means test purposes by reference to a specific conversion factor. This conversion is to the pensioner's advantage in the majority of cases but where this is not so, the payments continue to be treated as income.

Certain types of property are disregarded. They include the permanent home of the pensioner, his furniture and personal effects, the surrender value (up to \$1,500) of life insurance policies, the capital value of annuities or contingent interests, and the value of reversionary interests.

For the purposes of the means test the income and property of a married person are considered to be half the total income and property of the husband and wife unless they are legally separated or in other special circumstances.

AGE AND INVALID PENSIONS IN FORCE 30 JUNE 1973

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Age—									
Males	102,380	75,942	47,579	27,745	21,948	9,270	712	970	286,546
Females	239,639	175,040	97,457	63,250	46,753	19,837	947	2,343	645,266
Persons	342,019	250,982	145,036	90,995	68,701	29,107	1,659	3,313	931,812
Invalid—									
Males	34,962	20,027	13,824	7,441	5,474	2,836	457	284	85,305
Females	26,511	14,217	11,121	5,914	4,044	2,019	265	213	64,304
Persons	61,473	34,244	24,945	13,355	9,518	4,855	722	497	149,609

NEW PENSIONERS, BY SEX AND MARITAL STATUS: AUSTRALIA, 1972-1973

Marital status	Age pensioners			Invalid pensioners			Total
	Males	Females(a)	Persons(a)	Males	Females	Persons	
Single(b)	4,918	9,432	14,350	6,203	4,077	10,280	24,630
Married	41,883	50,995	92,878	13,999	5,421	19,420	112,298
Widowed	6,127	24,144	30,271	1,016	1,194	2,210	32,481
Divorced	871	1,632	2,503	757	598	1,355	3,858
Total	53,799	86,203	140,002	21,975	11,290	33,265	173,267

(a) Includes transfers from wives' allowance to age pension. (b) Includes married but permanently separated.

The average age of new age pensioners was 68.8 years for men and 66.4 years for women.

NEW INVALID PENSIONERS, BY AGE GROUP: AUSTRALIA, 1972-73

	16-19 years	20-44 years	45-59 years	60-64 years	65 years and over	Total
Males . . . number	1,279	3,304	8,886	8,007	499	21,975
Females . . . number	1,154	2,723	7,034	220	159	11,290
Persons . . . number	2,433	6,027	15,920	8,227	658	33,265
Per cent	7	18	48	25	2	100

AGE AND INVALID PENSIONS: SUMMARY, AUSTRALIA

Year	Pensioners at end of year				Total payments during year(b)	Average weekly pensions as at end of year		
	Age Number	Rate(a)	Invalid	Total		Age(c)	Invalid (c)	Age and invalid combined (c)
			No.	No.	\$'000	\$	\$	\$
1968-69 . . .	(d)705,311	556	(d)121,744	(d)827,055	558,587	13.00	14.70	13.26
1969-70 . . .	779,007	603	133,766	912,773	641,982	13.61	15.70	13.91
1970-71 . . .	807,711	613	134,075	941,786	702,276	14.36	16.54	14.67
1971-72 . . .	832,693	620	138,818	971,511	818,517	16.38	18.98	16.75
1972-73 . . .	931,812	678	149,609	1,081,421	1,072,449	19.70	22.67	20.11

(a) Number of pensioners per 1,000 persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (b) Includes allowances and supplementary assistance. (c) Includes supplementary assistance, additional pensions for children, and guardian's allowance, where applicable. (d) The 1968-69 figures are adjusted by reducing the number of invalid pensioners by 1,583 and increasing the number of age pensioners by 1,223 following the introduction of computer processing in Victoria.

Widows' pensions

Rates and conditions. Widows' pensions are payable according to the following classes. The rates shown are those payable from 26 March 1974 when widows' pensions were increased.

Class 'A'. A widow who has the custody, care and control of one or more eligible children under the age of sixteen years or eligible student children—The maximum amount payable is the standard rate pension of \$1,352 per annum (\$26 a week) and a mother's allowance of up to \$208 per annum (\$4 a week) which is increased to \$312 per annum (\$6 a week) if caring for a child under six years of age or an invalid child requiring full-time care. In addition, extra pension of \$260 per annum (\$5 a week) for each child under sixteen years is payable subject to the means test. Payment may be made for a child over sixteen, if he or she is wholly or substantially dependent on the widow and is receiving full-time education at a school, college or university.

Class 'B'. A widow who has no eligible children under sixteen years of age or full-time student children in her custody, care and control, and who is not less than fifty years of age or who, after having attained the age of forty-five years, ceased to receive a Class 'A' widow's pension because she no longer has the custody, care and control of a child—The maximum amount payable is \$1,352 per annum (\$26 a week).

Class 'C'. A widow who is under fifty years of age and has no eligible children under the age of sixteen years, or full-time student children, in her custody, care and control, but is in necessitous circumstances within the twenty-six weeks after the death of her husband—\$26 a week for not more than twenty-six weeks after the death of her husband. If the widow is pregnant this period may be extended until the child's birth. She may then become eligible for a Class 'A' widow's pension.

Widow pensioners may receive supplementary assistance of up to \$208 per annum (\$4 a week), subject to a special means test, if they pay rent or pay for board and lodging or for lodging.

For classes 'A' and 'B' the term 'widow' includes a wife who has been deserted by her husband without just cause for a period of at least six months; a divorcee; a woman whose husband has been imprisoned for at least six months; and a woman whose husband is in a mental hospital. Certain dependent females also may qualify for 'A', 'B' or 'C' Class pensions.

A period of residence in Australia before claiming pension is not required if a woman and her husband were residing permanently in Australia when she became a widow. In other circumstances, five years continuous residence immediately preceding lodgment of the claim is required, but this is waived in the case of a woman whose husband has died overseas if she has resided continuously in Australia for ten years at any time and returns to Australia to live.

A widow's pension is not payable to a woman receiving an age or invalid pension, a sheltered employment allowance, a tuberculosis allowance, a war widow's pension, nor to a deserted wife or a divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband.

Means test. Widows' pensions are subject to a means test on income and property. The means test for widow pensions also applies to recipients of the supporting mother's benefit described below. The rate of pension payable in any case depends on the claimant's *means as assessed*. When calculating the means as assessed of a claimant for Class 'A' widow's pension or supporting mother's benefit, no amount in respect of property is taken into account where the value of the widow's or supporting mother's property is \$4,500 or less. If the value of property exceeds \$4,500 the woman's total assets or property are equated with income by treating each complete \$20 of assets above \$2,000 as equivalent to an income of \$2 a year. This amount is the property component. Means as assessed may consist entirely of the property component, entirely of income, or of various combinations of the property component and income. The method for calculating the means as assessed of a claimant for Class 'B' widow's pension is the same as for single, widowed or divorced claimants for age or invalid pension (see page 417). In the case of a Class 'A' widow, or a supporting mother the maximum rate of pension plus the appropriate mother's allowance and additional pension for children, are affected when the woman's means as assessed exceed the allowable sum of \$1,040. The annual maximum standard rate of pension plus the allowances mentioned above are reduced by half of the amount of any means as assessed in excess of \$1,040. No pension is payable where the widow, or supporting mother, has property valued at \$43,600 or more, or if caring for a child under six years of age or an invalid child requiring full-time care, where she has property valued at \$45,680 or more. For a Class 'B' widow the annual maximum rate of pension is reduced by half of the amount of any means as assessed in excess of \$1,040. No pension is payable where the widow has property valued at \$37,840 or more. There is no specific means test for the Class 'C' pension, which is paid only where it is evident that a widow has insufficient means of support. The types of income and property disregarded for means test purposes are the same as for age and invalid pensions. Supplementary assistance is reduced by the amount by which *means as assessed* exceed \$52.

The average age of new widow pensioners admitted during 1972-73 was: Class 'A', 36.0 years; Class 'B', 58.8 years; Class 'C', 42.0 years; and for all classes, 44.3 years.

WIDOWS' PENSIONS: 1972-73

	Number admitted —all classes (a)	Pensions current at end of year				Average weekly pension at end of year (b)	Amount paid in pensions during year (c)
		Class 'A'	Class 'B'	Class 'C'	All classes		
New South Wales	9,735	20,319	16,803	31	37,153	28.24	\$'000 49,413
Victoria	8,247	16,428	13,302	14	29,744	28.20	39,071
Queensland	3,683	8,161	6,849	16	15,026	28.58	20,560
South Australia	2,962	5,910	5,111	2	11,023	27.98	14,364
Western Australia	2,377	4,088	3,851	9	7,948	27.62	10,064
Tasmania	882	2,203	1,394	3	3,600	29.89	5,136
Northern Territory	151	314	213	1	528	31.39	774
Australian Capital Terri- tory	238	449	245	1	695	28.55	899
Abroad . . . . .	..	(d)	(d)	(d)	(d)	..	223
Total	28,275	57,872	47,768	77	105,717	28.28	140,505

(a) Excludes transfers from one class to another. (b) Includes supplementary assistance and allowances. (c) Includes payments to benevolent homes for maintenance of pensioners. (d) Included in the figures for the State or Territory in which the pensioner is normally domiciled.

WIDOWS' PENSIONS: SUMMARY, AUSTRALIA

Year	Number admitted —all classes (a)	Pensions current at end of year				Average weekly pension at end of year (b)	Amount paid in pensions during year (c)
		Class 'A'	Class 'B'	Class 'C'	All classes		
						\$	\$'000
1968-69	15,993	38,038	39,768	91	77,897	17.63	69,080
1969-70	22,466	44,064	42,771	86	86,921	18.96	81,753
1970-71	18,223	47,146	43,157	96	90,399	19.72	90,514
1971-72	19,413	49,811	42,893	80	92,784	23.31	104,627
1972-73	28,275	57,872	47,768	77	105,717	28.28	140,505

(a) Excludes transfers from one class to another. (b) Includes supplementary assistance and allowances. (c) Includes payments to benevolent homes for maintenance of pensioners.

For details of training scheme for widow pensioners, see page 428.

Supporting mother's benefit

The Government introduced the supporting mother's benefit on 3 July 1973. It is for unmarried mothers; mothers who are deserted de facto wives, de facto wives of prisoners, or separated wives. The benefit becomes payable six months after the date of the event giving rise to eligibility (e.g. six months after the date of birth of a child, or six months after the date of separation). A supporting mother is qualified to receive a benefit if she is residing in Australia on the date on which she lodges her claim for the benefit and, if unmarried, the child was born while she was residing in Australia; or, in the case of a married woman living apart from her husband, she was residing in Australia immediately before she commenced to live apart; or, in the case of a deserted de facto wife or the de facto wife of a prisoner, if she was residing in Australia immediately before the de facto relationship ceased; or if a woman has been continuously resident in Australia for not less than five years immediately preceding the date on which she lodged a claim for the benefit. To be eligible for the benefit a woman must be supporting an eligible child under the age of 16 years, or an older dependent full-time student. The supporting mother's benefit of \$26 a week is paid together with the mother's allowance, additional benefit for children and supplementary assistance, subject to means test conditions similar to those which apply to the Class 'A' widow's pension.

Double orphan's pension

This pension was introduced from 9 October 1973. It is payable to the guardian of a child both of whose parents or adoptive parents are dead, or one of whom is dead and the other missing. Payment is made for orphans who are under 16 years or who are full-time students under 21. There is no means test. The pension is payable at the rate of \$10 a week for each eligible child. A double orphan's pension is not payable if the child attracts a war orphan's pension under the Repatriation Act.

Funeral benefits

A benefit of up to \$40 is payable to an eligible age, invalid or widow pensioner who is liable for the funeral costs of another such deceased pensioner, a deceased child or a deceased spouse; a benefit of up to \$20 is payable to any (other) person liable for the funeral costs of a deceased age or invalid pensioner in respect of whose burial a funeral benefit may be granted.

**FUNERAL BENEFITS GRANTED
(Number)**

<i>State, Territory, etc.</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
New South Wales	21,830	20,215	22,430	20,802	20,854
Victoria	13,897	12,844	14,881	13,973	13,782
Queensland	7,930	7,754	8,505	8,046	8,168
South Australia	4,855	4,643	4,937	4,976	4,918
Western Australia	3,397	3,442	3,741	3,649	3,470
Tasmania	1,438	1,437	1,408	1,474	1,424
Northern Territory	5	15	8	7	12
Australian Capital Territory	136	148	175	178	175
Abroad	3	4	3	8	..
Total	53,491	50,502	56,088	53,113	52,803

Total cost of funeral benefits granted during 1972-73 was \$1,578,875.

Maternity allowances

Maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children and are additional to the benefits provided under the Australian Government health scheme. They are not subject to a means test.

A maternity allowance is payable to a woman who gives birth to a child if she resides, or intends to reside permanently in Australia and gives birth to the child in Australia, and to a woman who gives birth to a child while travelling to Australia if she intends to reside permanently in Australia, provided she receives no benefit similar to a maternity allowance from the country from which she came. A woman who gives birth to a child during a temporary absence from Australia may also be eligible. An alien mother may receive the allowance if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child, or if she is likely to remain in Australia permanently. Payment may be made in respect of the birth of a still-born child, or a child which lives for less than twelve hours, if the child had developed for at least five and a half months.

Rates of allowance. The allowance is \$30 if the mother has no other children under sixteen, \$32 if she has one or two other children under sixteen, and \$35 if she has three or more other children under sixteen. In the case of multiple births the allowance is increased by \$10 for each additional child born. An advance payment of \$20 may be made four weeks before the expected date of birth. The balance is payable immediately after the birth.

**MATERNITY ALLOWANCES: CLAIMS PAID AT EACH RATE
(Number)**

	<i>Multiple births</i>										<i>Total claims paid</i>
	<i>Single births</i>			<i>Twins</i>			<i>Triplets</i>			<i>Other</i>	
	<i>\$30</i>	<i>\$32</i>	<i>\$35</i>	<i>\$40</i>	<i>\$42</i>	<i>\$45</i>	<i>\$50</i>	<i>\$52</i>	<i>\$55</i>	<i>\$60</i>	
New South Wales	36,424	42,146	10,043	333	456	136	4	6	2	1	89,551
Victoria	26,039	33,292	8,085	247	382	137	1	6	1	..	68,190
Queensland	14,624	16,922	5,612	97	148	58	..	1	3	..	37,465
South Australia	8,576	10,266	1,984	66	90	19	..	1	..	..	21,002
Western Australia	8,111	10,606	2,550	70	114	30	1	1	1	..	21,484
Tasmania	2,806	3,724	1,014	26	32	12	..	1	..	..	7,615
Northern Territory	1,010	1,255	539	9	9	3	..	..	..	..	2,825
Australian Capital Territory	1,484	1,805	360	8	20	10	..	..	1	..	3,688
Abroad	51	11	1	..	..	1	..	..	..	..	64
Total	99,125	120,027	30,188	856	1,251	406	6	16	8	1	251,884

MATERNITY ALLOWANCES: CLAIMS PAID, AUSTRALIA

Year	Claims paid			Amount paid
	Single births	Multiple births	Total	
				\$'000
1968-69	248,599	2,688	251,287	7,960
1969-70	249,149	2,755	251,904	8,000
1970-71	267,235	2,817	270,052	8,554
1971-72	269,148	2,858	272,006	8,617
1972-73	249,340	2,544	251,884	7,970

Child endowment

A person who is resident in Australia and has the custody, care, and control, of one or more children under the age of sixteen years or of a full-time student child over sixteen but under twenty-one years, or an approved institution of which children are inmates, is qualified to receive an endowment in respect of each such child. Full-time student children are those receiving full-time education at a school, college or university and who are not in employment or engaged in work on their own account. There are provisions to meet cases of families divided because of divorce, separation, unemployment or death of a parent. There is no means test.

Twelve months residence in Australia is required if the claimant and the child were not born here, but this requirement is waived if the Department of Social Security is satisfied that they are likely to remain in Australia permanently. Where the child's father is not a British subject, endowment is payable if the child was born in Australia, if the mother is a British subject, or if the Department is satisfied that the child is likely to remain permanently in Australia. Under certain conditions, endowment may be paid to Australians who are temporarily absent overseas.

Rates of endowment. Since 12 October 1971 the weekly rates have been: children under sixteen years—50 cents for the first or only child; \$1.00 for the second; \$2.00 for the third; and then increases of 25 cents for each subsequent child, making \$2.25 for the fourth, \$2.50 for the fifth and so on. For each eligible student child the rate is \$1.50. The rate payable for each child under sixteen years in an approved institution is \$2.00 a week.

Number of claims and endowed children—children under sixteen years. The number of families receiving child endowment at 30 June 1973 in respect of children under sixteen years was 1,870,638, an increase of 27,160 or 1.45 per cent during the year.

CHILD ENDOWMENT: CLAIMS AND ENDOWED CHILDREN UNDER 16 YEARS
30 JUNE 1973

State, Territory, etc.	Family groups			Approved institutions		Total endowed children under 16 years
	Endowed children under 16 years			Number (a)	Endowed child inmates under 16 years	
	Claims in force	Number	Average number per claim			
New South Wales	656,254	1,368,706	2.09	142	5,631	1,374,337
Victoria	517,152	1,105,834	2.14	128	5,756	1,111,590
Queensland	268,871	596,501	2.22	42	1,827	598,328
South Australia	172,453	361,539	2.10	67	1,203	362,742
Western Australia	156,774	342,055	2.18	78	4,714	346,769
Tasmania	57,961	128,297	2.21	23	440	128,737
Northern Territory	15,053	35,297	2.34	23	268	35,565
Australian Capital Territory	25,964	56,003	2.16	2	17	56,020
Abroad	156	278	1.78	..	..	278
Total	1,870,638	3,994,510	2.14	505	19,856	4,014,366

(a) All institutions approved for receipt of endowment.

The following table shows, as at 30 June 1973, the number of claims in force and the number of endowed children under sixteen years in family groups, classified according to the number of endowed children in the family group. The families included in the table are not necessarily made up entirely of the children of one marriage, but may include step-children, foster children, adopted children, and any other children in the custody, care and control of the claimant.

**CHILD ENDOWMENT: ENDOWED CHILDREN UNDER 16 YEARS IN FAMILY GROUPS
TOTAL, 30 JUNE 1973**

<i>Number of endowed children under 16 years in family group</i>	<i>Claims in force</i>	<i>Endowed children under 16 years</i>	<i>Number of endowed children under 16 years in family group</i>	<i>Claims in force</i>	<i>Endowed children under 16 years</i>
1	647,451	647,451	9	797	7,173
2	656,544	1,313,088	10	258	2,580
3	349,763	1,049,289	11	90	990
4	142,069	568,276	12	33	396
5	47,490	237,450	13	11	143
6	17,616	105,696	14	1	14
7	6,171	43,197	15 or more	2	31
8	2,342	18,736	Total	1,870,638	3,994,510

**CHILD ENDOWMENT: CLAIMS AND ENDOWED STUDENT CHILDREN
30 JUNE 1973**

<i>State, Territory, etc.</i>	<i>Family groups</i>			<i>Approved institutions</i>		<i>Total endowed student children</i>
	<i>Claims in force</i>	<i>Endowed student children</i>		<i>Number(a)</i>	<i>Endowed student child inmates</i>	
		<i>Number</i>	<i>Average number per claim</i>			
New South Wales	71,658	78,748	1.10	22	178	78,926
Victoria	64,846	72,054	1.11	30	137	72,191
Queensland	19,195	21,034	1.10	9	112	21,146
South Australia	21,800	24,068	1.10	18	120	24,188
Western Australia	16,088	17,790	1.11	40	31	17,821
Tasmania	5,266	5,825	1.11	7	9	5,834
Northern Territory	767	846	1.10	6	4	850
Australian Capital Territory	3,127	3,532	1.13	..	..	3,532
Abroad	21	28	1.33	..	..	28
Total	202,768	223,925	1.10	132	591	224,516

(a) Included with approved institutions in second table on page 422.

**CHILD ENDOWMENT: ENDOWED STUDENT CHILDREN IN FAMILY GROUPS
TOTAL, 30 JUNE 1973**

<i>Number of endowed student children in family group</i>	<i>Claims in force</i>	<i>Endowed student children</i>	<i>Number of endowed student children in family group</i>	<i>Claims in force</i>	<i>Endowed student children</i>
1	182,819	182,819	4	42	168
2	18,787	37,574	5 or more	2	10
3	1,118	3,354	Total	202,768	223,925

SOCIAL SECURITY AND WELFARE SERVICES

**CHILD ENDOWMENT: CHILDREN UNDER 16 YEARS
LIABILITY AND EXPENDITURE, 1972-73**
(S'000)

<i>State, Territory, etc.</i>	<i>Annual liability at 30 June 1973</i>			<i>Total payments to endowees and institutions during year(a)</i>
	<i>Family groups</i>	<i>Approved institutions</i>	<i>Total</i>	
New South Wales	71,384	586	71,970	78,890
Victoria	58,898	599	59,497	64,961
Queensland	33,097	190	33,287	35,776
South Australia	18,775	125	18,900	20,757
Western Australia	18,384	490	18,874	20,047
Tasmania	7,032	46	7,078	7,653
Northern Territory	2,086	28	2,114	2,035
Australian Capital Territory	2,960	2	2,962	3,238
Abroad	13	..	13	(b)59
Total	212,629	2,065	214,694	233,416

(a) See footnote (b) to summary table below. (b) Includes expenditure for endowed student children; separate figures are not available.

**CHILD ENDOWMENT: STUDENT CHILDREN, LIABILITY, AND
EXPENDITURE, 1972-73**
(S'000)

<i>State, Territory, etc.</i>	<i>Annual liability at 30 June 1973</i>			<i>Total payments to endowees and institutions during year</i>
	<i>Family groups</i>	<i>Approved institutions</i>	<i>Total</i>	
New South Wales	6,142	14	6,156	7,360
Victoria	5,620	11	5,631	6,722
Queensland	1,641	9	1,650	2,112
South Australia	1,877	9	1,886	2,022
Western Australia	1,388	2	1,390	1,360
Tasmania	454	1	455	531
Northern Territory	66	..	66	58
Australian Capital Territory	275	..	275	308
Abroad	2	..	2	(a)
Total	17,466	46	17,512	20,473

(a) Included in preceding table showing expenditure for endowed children under sixteen years; separate figures are not available.

CHILD ENDOWMENT: SUMMARY, AUSTRALIA

<i>Year</i>	<i>At end of year</i>					
	<i>Family group claims in force</i>			<i>Total liability for endowment children</i>	<i>Annual liability for endowment (b)</i>	<i>Total payments during year (b)</i>
	<i>For children under 16 years(a)</i>	<i>For student children(a)</i>	<i>Approved institutions</i>			
1968-69	1,701,914	187,500	493	3,996,042	\$'000 202,034	\$'000 193,263
1969-70	1,749,734	194,576	456	4,079,378	205,065	(c)220,143
1970-71	1,797,628	196,999	469	4,155,930	207,499	198,467
1971-72	1,843,478	209,466	485	4,234,500	234,972	216,610
1972-73	1,870,638	202,768	505	4,226,495	232,207	(c)253,890

(a) Claims by families with children under sixteen and student children are shown in both columns. Information on the number of families having such dual claims is not available. (b) A number of endowments are paid every twelve weeks. During two years out of every three there are four such payments but every third year there are five. Figures for annual liability therefore, reflect trends in expenditure on child endowment more accurately than do figures for payments. (c) Expenditure for this year includes five twelve-weekly payments for endowed children under 16 years.

Unemployment and sickness benefits

Unemployment and sickness benefits are paid to males over sixteen and under sixty-five years of age, and females over sixteen and under sixty years of age, who are unemployed or who are temporarily incapacitated for work and thereby suffer loss of income. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. There is a means test on income. A person receiving an age, invalid or widow's pension, or a service pension (as distinct from a war pension) under the *Repatriation Act 1920-1974* or a tuberculosis allowance, is ineligible to receive a benefit.

For unemployment benefit purposes, a person must establish that he is unemployed, that his unemployment is not due to his being a direct participant in a strike, that he is capable and willing to undertake suitable work, and that he has taken reasonable steps to obtain such work. Registration for employment with the District Employment Office of the Commonwealth Employment Service is necessary. For sickness benefit purposes, a person must establish that he is temporarily incapacitated for work because of sickness or accident and that he has thereby suffered a loss of salary, wages or other income. A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where her husband is able to maintain her only partially, a benefit may be paid at such rate as is considered reasonable in the circumstances.

Rates of Benefit. The maximum weekly rates of unemployment and sickness benefit payable, and the permissible income in respect of benefit periods which commenced after the introduction of increased benefits in March 1974, are as follows:—

	<i>Maximum weekly rate \$</i>	<i>Permissible weekly income \$</i>
Married man (includes additional benefit for wife)	45.50	6.00
Single person aged 21 years or more	26.00	6.00
Single person aged 16 to 20 years	26.00	3.00
A person aged under 21 years who does not have a parent living in Australia	26.00	6.00

These amounts should be increased by \$5.00 for each child under 16 years, or a full-time student in the care of the beneficiary.

After the benefit has been paid for six consecutive weeks a beneficiary who is paying rent, or is paying for lodgings, may be entitled to supplementary allowance of up to \$4.00 a week.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount of permissible income. For unemployment benefit purposes the income of the spouse is also taken into account unless the claimant and his spouse are permanently separated. For sickness benefit purposes the income from an approved friendly society, or other similar approved body, in respect of the incapacity for which sickness benefit is payable is disregarded. 'Income' does not include child endowment or other payments for children, health benefits and payments from registered benefit organisations, a tuberculosis allowance, or an amount paid in reimbursement of medical, dental or similar expenses. The supplementary allowance is reduced by the amount by which a beneficiary's other income exceeds \$1.00 a week.

The amount of compensation, damages or similar payment, or war pension, if paid in respect of the same incapacity as that for which sickness benefit is claimed, is deducted from the sickness benefit. If not paid in respect of the same incapacity, compensation is regarded as income and war pension is ignored.

There is a waiting period of seven days during which unemployment or sickness benefit is not payable, but this waiting period is not required more than once in any period of thirteen weeks.

Special benefit

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not receiving an age, invalid or widow's pension, a service pension or a tuberculosis allowance and who, because of age, physical or mental disability or domestic circumstances, or for any other reason, is unable to earn a sufficient livelihood for himself and his dependants. Recipients of special benefits include, among others, persons caring for invalid parents, and persons ineligible for age, invalid or widow's pensions because of lack of residence qualifications.

Special benefits are also paid to immigrants who are in Australian Government centres or hostels awaiting their first placement in employment in Australia. During this time they receive a short instruction in English and in Australian conditions to facilitate their assimilation into the community and employment.

No means test or residence requirement is laid down but there is an overriding requirement that a person must be suffering hardship to be granted a special benefit.

The maximum rate of special benefit is the same as for unemployment benefit.

UNEMPLOYMENT, SICKNESS, AND SPECIAL BENEFITS 1972-73(a)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Number admitted to benefit during year—										
Unemployment—										
Males	59,001	48,734	32,817	22,274	30,304	8,316	1,314	555	203,315	
Females	23,628	18,667	13,051	8,837	8,118	4,220	245	492	77,258	
Persons	82,629	67,401	45,868	31,111	38,422	12,536	1,559	1,047	280,573	
Sickness—										
Males	30,088	20,302	13,374	5,988	6,508	2,644	485	469	79,858	
Females	8,682	5,711	3,030	1,597	1,462	651	98	160	21,391	
Persons	38,770	26,013	16,404	7,585	7,970	3,295	583	629	101,249	
Special—										
Ordinary—										
Males	779	228	270	62	50	18	2	2	1,411	
Females(b)	5,669	2,478	2,244	980	837	441	77	74	12,800	
Persons	6,448	2,706	2,514	1,042	887	459	79	76	14,211	
Immigrants—										
Persons	1,518	..	298	240	..	..	..	..	2,056
Total—										
Males(c)	89,868	69,264	46,461	28,324	36,862	10,978	1,801	1,026	284,584	
Females(d)	37,979	26,856	18,325	11,414	10,417	5,312	420	726	111,449	
Persons	129,365	96,120	65,084	39,978	47,279	16,290	2,221	1,752	398,089	
Persons on benefit at end of year—										
Unemployment—										
Males	6,952	7,868	3,125	2,145	2,935	1,306	29	36	24,396	
Females	4,776	3,314	1,974	1,292	1,137	1,024	9	23	13,549	
Persons	11,728	11,182	5,099	3,437	4,072	2,330	38	59	37,945	
Sickness—										
Males	5,493	4,583	1,821	1,118	1,056	458	35	83	14,647	
Females	1,621	1,252	454	338	275	125	2	30	4,097	
Persons	7,114	5,835	2,275	1,456	1,331	583	37	113	18,744	
Special—										
Ordinary—										
Males	225	114	65	14	28	6	..	3	455	
Females(b)	1,474	1,002	660	322	264	142	18	20	3,902	
Persons	1,699	1,116	725	336	292	148	18	23	4,357	
Immigrants—										
Persons	36	..	2	1	..	..	..	..	39
Total—										
Males(c)	12,670	12,565	5,011	3,277	4,019	1,770	64	122	39,498	
Females(d)	7,871	5,568	3,088	1,952	1,676	1,291	29	73	21,548	
Persons	20,577	18,133	8,101	5,230	5,695	3,061	93	195	61,085	
Benefits paid during year—										
Unemployment	\$'000	14,065	12,074	6,702	5,107	6,253	2,095	149	108	46,553
Sickness	\$'000	10,056	7,923	3,504	2,226	1,840	792	90	180	26,610
Special(d)	\$'000	1,845	1,010	753	311	279	129	20	23	4,368
Total benefits paid	\$'000	25,966	21,007	10,958	7,643	8,371	3,016	259	310	77,531

(a) Excludes a small number of persons receiving unemployment benefits in outlying areas. (b) Since June 1968, special benefits, instead of sickness or unemployment benefits, became payable for confinement cases. (c) Excludes immigrants in Government centres or hostels awaiting their first placement in employment in Australia. (d) Includes immigrants in the category described in footnote (c).

UNEMPLOYMENT, SICKNESS, AND SPECIAL BENEFITS: SUMMARY, AUSTRALIA

Year	Number admitted to benefit during year			Average number of persons on benefit at end of each week			Amount paid in benefits		
	Unem- ployment	Sickness	Special (a)	Unem- ployment	Sickness	Special (a)	Unem- ployment	Sickness	Special (a)
1968-69	132,914	63,024	(b)21,928	17,818	8,407	(b)4,307	\$'000 9,268	\$'000 5,531	\$'000 (b)2,031
1969-70	109,383	66,766	23,129	13,212	8,572	4,445	8,868	7,146	2,578
1970-71	137,963	73,601	22,982	14,979	9,524	4,293	10,795	10,262	2,420
1971-72	255,417	83,879	18,147	29,110	11,927	3,968	25,997	15,906	2,851
1972-73	280,573	101,249	16,267	39,580	16,163	4,090	46,553	26,610	4,368

(a) Includes immigrants in Government centres or hostels awaiting their first placement in employment in Australia. (b) Since June 1968, special benefits instead of sickness or unemployment benefits, became payable for confinement cases.

Sheltered employment allowance

This allowance was introduced on 30 June 1967 as an alternative to an invalid pension. It is available to disabled employees engaged in approved sheltered employment who have been receiving invalid pension or are likely to become medically qualified for such pension if not provided with sheltered employment.

The maximum rate of the allowance is the same as the maximum rate of invalid pension. Additional benefits such as wife's pension and additional pension for children that would be paid if the person were an invalid pensioner are added to the sheltered employment allowance to form one composite payment. The means test is the same as for invalid pensions.

In the year ended 30 June 1973, workshops were approved under the *Social Services Act 1947-1973* to pay sheltered employment allowances on behalf of the Department of Social Security. At 30 June 1973 fifteen workshops were paying the allowances to 1,080 disabled employees. Employees in other sheltered workshops continued to receive invalid pensions. Expenditure during the year 1972-73 was \$1,161,329.

Australian Rehabilitation Service

The Australian Rehabilitation Service was set up to help persons who are unable to work because of physical handicap, or who have had to give up their employment because of sickness or injury. It helps disabled persons to reach their maximum physical fitness and to prepare for suitable employment. They are given suitable treatment and training, the cases selected being those in which the person's disability is remediable (except in the case of blindness) and there are reasonable prospects of his engaging in a suitable vocation.

The service is available to invalid and widow pensioners, supporting mothers, persons receiving unemployment, sickness or special benefits, national servicemen who are disabled at time of discharge but are ineligible for rehabilitation assistance from the Repatriation Department, persons receiving tuberculosis allowances, and persons aged fourteen or fifteen who, without treatment and training, would be likely to qualify for an invalid pension on reaching the age of sixteen years. During treatment, payment of pension or benefit continues. When vocational training begins the pension or benefit is suspended and a rehabilitation allowance, together with a training allowance of \$8.00 a week full-time and \$4.00 a week part-time, is paid instead. With an invalid pensioner, or a sickness, unemployment, or special beneficiary, the rehabilitation allowance is equivalent to and calculated in the same manner as an invalid pension. For a widow pensioner or supporting mother the rate is the same as that of the widow's pension.

Living-away-from-home allowances are paid where necessary. Fares and living expenses (including those of an attendant where required) incurred in connection with treatment, training or attendance for an interview or for medical examination may also be paid. Necessary artificial replacements, surgical aids and appliances may be provided, free of charge, to a person receiving treatment and training or who needs them to assist him to engage in a suitable vocation after the discontinuance of his treatment and training or who needs them otherwise to assist in his rehabilitation. He may also be provided with books, equipment and tools of trade during training free of charge. Where books, equipment and tools of trade are provided after the completion of training to assist a person to engage in a suitable vocation, and are retained by him, he is liable to repay the cost but is not required to make repayment until after he has commenced employment. The repayment may be made by instalments. If the treatment or vocational training does not result in the trainee being able to engage in employment, he receives the pension or benefit to which he is entitled.

People who become disabled while working for the Australian Government and who are covered by the Compensation (Australian Government Employees) Act also qualify for a rehabilitation service. Disabled persons who cannot qualify for the free service may pay for rehabilitation themselves or they may be sponsored by State Government or private organisations.

Numbers dealt with by the service.

REHABILITATION SERVICE: AUSTRALIA, 1972-73

Class of beneficiary	Referred	Accepted	Completed training	Placed in employment		Expenditure during year \$'000	
				After training	Without training		
Invalid pensioners	3,558	272	95	80	119	} n.a.	
Widow pensioners	5	3	2	2	..		
Unemployment and sickness beneficiaries	23,339	1,268	234	225	709		
Special beneficiaries	13	3	..	..	..
Recipients of tuberculosis allowances	3	2	1	1	1		
Persons whose rehabilitation is continued under Section 135P of the Social Services Act(a)	306	226	12	19	146		
Persons provided with rehabilitation under Section 135s of the Social Services Act (b)							
Persons aged 14-15 years							123	49	13	9	32
Total	27,347	1,823	357	336	1,007		(c) 4,659

(a) Persons receiving invalid pensions etc., when accepted for rehabilitation and who, on becoming ineligible for the pension, etc., are provided with rehabilitation on payment of the cost. (b) Persons provided with rehabilitation on payment of the cost by another authority. (c) Excludes capital expenditure by the Department of Works on sites and buildings, and administrative costs of the Rehabilitation Service.

Of the 1,823 persons accepted during 1972-73, 76 per cent were under forty years of age. The average number undergoing rehabilitation at the end of each month during the year was 1,217.

Training scheme for widow pensioners

In September 1968 a scheme was introduced to help widow pensioners acquire vocational skills which will enable them to undertake gainful employment. Training may take the form of refresher courses or it may involve training for new skills. During training the widow continues to receive her pension for as long as she remains eligible. In addition to pension she may receive a training allowance of \$4 a week for part-time training, or \$8 a week for full-time training. Where necessary a living-away-from-home allowance of \$10 a week for women without children, or \$16 a week with children, may be paid. The cost of tuition fees and fares may also be met; and books, equipment, appliances and tools of trade necessary during training may be supplied free of charge up to the value of \$80 in any period of twelve months. A loan of up to \$400 is available in certain circumstances to enable equipment to be purchased for employment at home. Of the 2,592 applications received during 1972-73, 1,433 were accepted for training and of this number 1,353 commenced training. During the year 1,214 completed training and 829 were placed in employment. Expenditure during the year was \$517,549.

Australian Government assistance to welfare organisations

The Aged Persons Homes Act 1954-1973 is designed to encourage the provision of homes in which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under the Act an organisation must be:

- (a) carried on otherwise than for the purposes of profit or gain to the individual members; and
- (b) a religious organisation, an organisation of which the principal objects or purposes are charitable or benevolent, an organisation of former members of the defence forces established in every State or a State branch of such an organisation, an organisation approved by the Governor-General for the purposes of the Act, or a local governing body.

An organisation conducted or controlled by, or by persons appointed by, the Australian or any State Government is not eligible for assistance under the Act.

The Director-General of the Department of Social Security may make a grant of money to an organisation as assistance towards meeting the cost of the construction or purchase of a home, including land, to be used permanently for the accommodation of aged persons. The grant is made on a basis of \$2 for each \$1 raised by the organisation (\$1 for each \$1 from 1954 to 1957), not counting money which the organisation received from a governmental body (other than a local governing body) or borrowed.

Before a grant is made the Director-General must be satisfied that the sum of the money expended and the money at present available for expenditure by the organisation towards the capital cost of the home, together with the amount of the grant, will be not less than the capital cost of the home.

The following table gives information regarding grants approved during 1972-73. The amounts granted include new grants approved in 1972-73 together with adjustments made during the year in respect of grants originally approved in earlier years.

AGED PERSONS HOMES: GRANTS AND AMOUNTS APPROVED AND BEDS PROVIDED, 1972-73

State	Grants approved		Beds provided and type of accommodation			
	Number	Amount (\$'000)	Self-contained	Hostel	Nursing	Total
New South Wales	67	7,289	739	152	629	1,520
Victoria	35	2,804	279	155	110	544
Queensland	36	2,606	180	184	169	533
South Australia	45	4,117	433	225	205	863
Western Australia	30	2,576	313	108	41	462
Tasmania	14	323	59	3	..	62
Northern Territory	1	20	5	..	..	5
Australian Capital Territory	..	8	..	..	..	..
Total	228	19,741	2,008	827	1,154	3,989

The following table gives information regarding grants approved for each of the past five years. The amounts granted in each year include new grants approved in that year together with adjustments made during the year in respect of grants originally approved in earlier years.

AGED PERSONS HOMES: GRANTS AND AMOUNTS APPROVED, AND BEDS PROVIDED AUSTRALIA

Year	Grants approved		Beds provided
	Number	Amount (\$'000)	Number
1968-69	193	12,704	3,342
1969-70	184	13,576	3,305
1970-71	235	18,972	4,136
1971-72	241	23,792	4,760
1972-73	228	19,741	3,989

Since the commencement of the Act in December 1954, 2,739 grants amounting to \$168,503,727 have been approved, and accommodation has been provided for 48,807 aged persons.

The Aged Persons Homes Act also provides a *personal care subsidy* of \$10 a week for persons of eighty years of age or over who receive approved personal care while living in hostel type accommodation provided by organisations eligible under the Aged Persons Homes Act. The following table gives details of the premises approved, payments made and number of residents aged eighty years or over residing in the approved premises.

AGED PERSONS HOMES GRANTS, PERSONAL CARE SUBSIDIES, 30 JUNE 1973

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved premises	No.	96	112	68	53	43	19	1	1	393
Residents qualifying	No.	1,612	2,210	1,375	1,138	554	259	3	6	7,157
	%	34.25	45.25	39.56	51.45	36.74	48.59	25.00	13.95	41.28
Subsidies paid, 1972-73	\$'000	792	994	583	504	278	119	1	3	3,273

The *Aged Persons Hostels Act 1972* was introduced to stimulate the provision of more hostel-type accommodation for needy aged people.

Under the scheme the Australian Government will meet the full cost of providing new hostel accommodation for two aged people for every one at present in an eligible unsubsidised home, or for one additional person for every two in a home previously subsidised on a dollar-for-dollar basis between 1954 and 1957. The organisation will not be required to make any contribution from its own resources unless the capital cost exceeds \$7,800 per person accommodated, or the bed capacity of the new home exceeds the number of 'free' beds to which the organisation is entitled. A further grant of up to \$250 for each person accommodated is available for furnishing the new hostel.

The new scheme is limited to a period of three years expiring on 27 September 1975 to encourage organisations to move quickly in taking advantage of the benefits the scheme offers.

This Act also has the effect of placing the old established organisations, which conducted homes prior to the introduction of the \$2 for \$1 scheme, in the same relative position as that achieved by newer organisations which have received a \$2 for \$1 subsidy, i.e. where two-thirds of their accommodation will have been provided by the Government.

Admission to these homes is based strictly on need with regard to the applicant's health, age, accommodation and financial situation. Since the commencement of the Act, 12 grants have been approved, totalling \$2,888,713.

AGED PERSONS HOSTELS GRANTS, 1972-73

	<i>Persons accommodated</i>				<i>Amount</i>		
	<i>No. of grants</i>	<i>Hostel beds</i>	<i>Staff beds</i>	<i>Total beds</i>	<i>Capital grants (\$'000)</i>	<i>Furnishings grants (\$'000)</i>	<i>Total grants (\$'000)</i>
New South Wales	4	139	5	144	1,123	36	1,159
Victoria	2	29	1	30	210	8	217
Queensland	1	9	..	9	65	2	67
South Australia	4	136	..	136	1,079	7	1,086
Western Australia . . . . .	..	..	..	..	..	..	..
Tasmania . . . . .	..	..	..	..	..	..	..
Nothorn Territory . . . . .	..	..	..	..	..	..	..
Australian Capital Territory	1	36	1	37	289	9	298
Total	12	349	7	356	2,766	62	2,827

The *Sheltered Employment (Assistance) Act 1967-1973* superseded the *Disabled Persons Accommodation Act 1963*. Under the latter Act, which was in operation from 25 November 1963 to 30 June 1967, total grants of \$372,118 had been approved. The new Act, which came into operation on 30 June 1967 was amended on 26 October 1970, and again on 13 November 1973, provides for subsidies of \$2 for \$1 to eligible organisations towards the capital cost of sheltered workshops, the equipment for them, and accommodation for disabled people employed in sheltered workshops or in normal industry. The Act covers the erection of buildings and the purchase of existing buildings. In both cases the cost of land is included in the capital cost as is the cost of any necessary conversion or extension of an existing building. The subsidy may also be paid towards the rental, for up to three years, where rented premises are used to provide sheltered employment. A training fee of \$500 is payable to sheltered workshop organisations in respect of each handicapped person who enters and remains in normal employment for twelve months following a period of at least six months training provided by the organisation. In addition, a subsidy of up to \$1 for \$1 is payable towards the salaries of certain sheltered workshop accommodation unit staff (such as supervisory staff, doctors, social workers and counsellors). Organisations eligible for grants under the Act are the same as those specified under the Aged Persons Homes Act.

A substantial number of the people employed in the sheltered workshop must be medically qualified for an invalid pension, or be likely to become so qualified if not provided with sheltered employment, and must receive payment for their work before the organisation can qualify for assistance under the Act.

During 1972-73 training fees were approved in respect of 49 handicapped workers who had graduated to open employment, at a cost of \$24,500, while a total of 1,178 approved staff positions received salary subsidy amounting to \$1,073,142.

The following table gives details of capital grants approved during the last financial year in each State and compares these figures with the situation obtaining throughout Australia for each of the preceding four years.

SHELTERED EMPLOYMENT (ASSISTANCE) ACT: CAPITAL GRANTS APPROVED

State	Capital Grants approved for—									
	Workshop premises		Workshop equipment		Workshop rental (p.a.)		Residential units		Total	
	No. of grants	Amount approved	No. of grants	Amount approved	No. of grants	Amount approved	No. of grants	Amount approved	No. of grants	Amount approved
		\$		\$		\$		\$		\$
New South Wales	16	169,601	237	157,150	9	39,946	3	316,515	265	683,212
Victoria	2 (a)	8,668	61	68,979	1	3,675	2	96,966	66	160,952
Queensland	12	157,282	85	55,017	4	9,107	3	85,809	104	307,215
South Australia	4	624,381	69	83,610	2	449	1	26,000	76	734,440
Western Australia	4	42,087	51	55,726	1	6,252	1	14,789	57	118,854
Tasmania	2	87,473	26	77,229	..	..	3	98,562	31	263,264
Total 1972-73	40	1,072,156	529	497,711	17	59,429	13	638,641	599	2,267,937
Total—										
1971-72	71	2,149,930	526	480,247	22	49,747	20	1,583,044	639	4,262,968
1970-71	61	968,461	526	407,945	14	19,978	5	216,860	606	1,613,244
1969-70	36	901,924	295	361,662	24	57,543	4	162,088	359	1,483,217
1968-69	34	1,169,074	198	253,798	14	27,654	3	346,639	249 (b)	1,797,165

(a) Negative adjustments to previous grants in excess of grants approved 1972-73. (b) Includes adjustment to grants originally approved under the Disabled Persons Accommodation Act.

The *Handicapped Children (Assistance) Act 1970* came into operation on 17 June 1970. The Act provides for subsidies of \$2 for \$1 to be paid to eligible organisations towards the capital cost of premises to be used for the training of handicapped children; the cost of equipment for such training; and the capital cost of residential accommodation for handicapped children receiving training. Organisations eligible for grants under the Act are the same as those specified under the Aged Persons Homes Act. At 30 June 1973 the subsidy had been extended to 147 premises to be used for training purposes and to 37 residential centres. The total amount approved under the Act by way of grants towards the cost of training centres, residential units and training equipment exceeded \$7,000,000.

Under the National Health Act handicapped children under 16 years of age, accommodated and cared for in an approved handicapped persons' home, have, since 1 January 1969, been entitled to an Australian Government benefit. This was raised to \$3.00 a day from 1 January 1974.

The benefit is paid direct to the approved handicapped persons' home and an equivalent amount is deducted from any charge raised by the home in respect of the handicapped child. The benefit applies to both physically and mentally handicapped children and is payable to charitable and religious organisations. Total benefits paid in 1972-73 amounted to \$429,090.

The *Delivered Meals Subsidy Act 1970* came into operation on 15 April 1970. Its purpose is to help organisations to establish, maintain, expand and improve 'meals-on-wheels' services. The subsidy is at the rate of \$1.50 for every ten meals provided by approved organisations. At 30 June 1973, 348 organisations had received a total subsidy of \$1,460,875 under the Act. Organisations eligible for grants under the Act are the same as those specified under the Aged Persons Homes Act.

Australian Government assistance to States

The *States Grants (Deserted Wives) Act 1968* came into operation on 21 June 1968 with retrospective effect from 1 January 1968. The Act provides for assistance to be given by the Australian Government to the States in respect of aid for needy mothers with children where there is no breadwinner and the mothers are not eligible for benefits under the Social Services Act. Broadly, these include deserted wives during the first six months of desertion, wives during the first six months of the husband's imprisonment, deserted de facto wives, de facto wives of prisoners, other separated wives and unmarried mothers.

The type of assistance attracting a grant may be provided in the form of cash, food or clothing. The grant is made by the Australian Government to the States on the basis of half the cost of the approved assistance paid to the mother or half the amount of Class 'A' widow's pension or supporting mother's benefit, which would have been payable had she been qualified to receive it, whichever is the lesser.

All States are now receiving assistance under the scheme. In 1972-73 payments by the Australian Government amounted to \$9,748,141 compared with \$5,876,257 during 1971-72.

The *States Grants (Home Care) Act 1969* provides that the Australian Government will share with participating States on a \$1 for \$1 basis, the cost of developing approved housekeeping or other domestic assistance provided wholly or mainly for aged persons in their homes. The Australian Government will also share on a \$1 for \$1 basis with participating States up to a maximum of one-third of the capital cost of approved senior citizens' centres as well as meeting on a \$1 for \$1 basis with the States the cost of a salary of a welfare officer employed by such a centre. All States participate in this scheme. The Australian Government share was increased to two-thirds of State expenditure from 1 July 1973.

The following table shows the total payments made to the States in 1972-73.

**PAYMENTS TO STATES FOR HOME CARE, SENIOR CITIZENS'
CENTRES, AND WELFARE OFFICERS, 1972-73**
($\$$)

<i>State</i>	<i>Home Care Services</i>	<i>Senior Citizens' Centres</i>	<i>Welfare Officers</i>	<i>Total</i>
New South Wales	212,049	102,122	1,080	315,251
Victoria	390,273	223,451	15,922	629,646
Queensland	247,895	183,714	3,293	434,902
South Australia	49,876	131,791	8,519	181,186
Western Australia	12,500	67,252	5,475	85,227
Tasmania	12,335	28,067	..	40,402
Total	915,928	736,397	34,289	1,686,614

The *States Grants (Dwellings for Aged Pensioners) Act 1969* enabled the Australian Government to make grants, amounting to \$25,000,000 over a five-year period commencing from 1 July 1969, to the States for the purpose of carrying out approved building schemes in connection with the provision of self-contained accommodation for single aged pensioners with little means.

**DWELLINGS FOR AGED PENSIONERS: ASSISTANCE TO STATES
1972-73**
($\$$)

<i>State</i>	<i>Grants paid in 1972-73</i>	<i>Total grants paid to 30.6.73</i>	<i>Maximum amount payable under the Act</i>
New South Wales	2,705,352	8,204,324	10,750,000
Victoria	1,478,000	5,850,247	6,500,000
Queensland	1,249,445	2,018,651	3,350,000
South Australia	380,140	1,853,431	2,000,000
Western Australia	518,815	1,443,370	1,750,000
Tasmania	138,397	628,397	650,000
Total	6,470,149	19,998,420	25,000,000

Telephone rental concessions

Effective from 1 October 1964 an amendment to the Telephone Regulations of the Post and Telegraph Act provided that a telephone service for blind persons and for qualified age, invalid and widow pensioners is available at an annual rental equal to two-thirds of the amount otherwise payable. The Department of Social Security re-imburses the Postmaster-General's Department for the cost of the scheme including administrative costs. Expenditure during 1972-73 was \$4,172,089, plus administrative costs amounting to \$120,703.

Compassionate allowances

These allowances are paid by the Australian Government on a discretionary basis to certain people who are unable to qualify for pensions or other benefits under the provisions of the Social Services Act. Expenditure on compassionate allowances and payments of a similar nature during 1972-73 was \$59,834.

National Health Benefits

Summary of cash benefits to persons

For an analysis by function and economic type of expenditure by all Australian Government authorities see Chapter 18, Public Finance.

Most Australian Government health benefits are financed through the National Welfare Fund. The following two tables show cash benefits to persons by Australian Government Authorities for recent years.

**AUTHORITIES OF THE AUSTRALIAN GOVERNMENT, HEALTH
CASH BENEFITS TO PERSONS 1972-73**
(S'000)

	N.S.W. (a)	Vic.	Qld	S.A. (a)	W.A.	Tas.	N.T. (a)	A.C.T. (a)	Abroad	Total
Hospital and clinical services—										
Hospital benefits, n.e.c.	33,774	19,277	10,955	8,575	7,509	2,048	..	132	..	82,270
Hospital benefits for pensioners	9,422	5,227	3,654	1,896	2,175	1,130	..	263	..	23,768
Nursing home benefits	39,462	18,815	14,204	8,027	9,375	2,840	..	114	..	92,836
Tuberculosis campaign allowances	225	198	157	116	46	38	..	..	..	780
Rehabilitation of ex-servicemen(b)	..	..	..	..	..	..	..	..	..	134
Total	82,883	43,517	28,970	18,614	19,105	6,056	..	509	..	199,788
Other health services—										
Medical benefits for pensioners	11,623	7,743	4,927	3,257	2,207	945	..	120	..	30,822
Medical benefits, n.e.c.	66,617	41,859	15,723	17,833	13,750	4,457	..	..	..	160,238
Pharmaceutical benefits for pensioners	23,697	14,139	9,487	5,377	3,758	1,681	..	..	..	58,139
Pharmaceutical benefits, n.e.c.	34,988	24,907	12,416	7,703	5,748	2,239	..	31,491	..	119,493
Milk for school children	3,998	2,992	1,984	990	1,086	383	139	209	..	11,781
Domiciliary care	321	225	191	101	100	84	..	..	..	1,022
Total	141,244	91,865	44,728	35,261	26,649	9,789	139	31,820	..	381,495
Total health	224,127	135,382	73,698	53,875	45,754	15,845	139	32,329	..	581,283

(a) State totals for New South Wales and South Australia also include most of the unallocable expenditure on cash benefits to persons resident in the Australian Capital Territory and the Northern Territory respectively. (b) Unallocable by States and included in total only.

**AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: HEALTH BENEFITS
CASH BENEFITS TO PERSONS**
(S'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Hospital and clinical services—					
Hospital benefits, n.e.c.	29,779	40,258	49,807
Hospital benefits for pensioners	24,520	24,163	23,555
Nursing home benefits	31,643	46,960	49,477
Tuberculosis campaign—allowances	921	771	659
Rehabilitation of ex-servicemen
Total	86,863	112,152	123,498
Other health services—					
Medical benefits for pensioners	16,912	19,224	19,904
Medical benefits n.e.c.	49,556	56,863	95,604
Pharmaceutical benefits for pensioners	36,609	41,069	45,181
Pharmaceutical benefits n.e.c.	81,764	95,650	115,094
Milk for school children	10,085	10,082	10,199
Domiciliary care
Total	194,927	222,888	285,982
Total health	281,789	335,040	409,480

Descriptions of each of the cash benefits to persons shown in the above tables are included in the following sub-sections.

Hospital, nursing home, domiciliary nursing care and handicapped children's benefits

Patients in approved hospitals. A basic principle of the provision of benefits for patients in approved hospitals is the support of voluntary insurance against the costs involved. Insured patients in approved hospitals receive a hospital benefit of \$2 per day which is paid through the contributors' registered hospital benefits organisations.

During 1971 and 1972 the hospital benefits tables were rationalised, in conjunction with the new charges adopted by the public hospitals in each State, as shown in the table below. Pensioners enrolled in the Pensioner Medical Service are generally treated free of charge and, in some States, other pensioners may also be treated without charge. In addition to the following schedule registered organisations in some States operate a table to cover the cost of private hospital accommodation.

Expenditure on hospital, nursing home, domiciliary nursing care and handicapped children's benefits. The following table shows the amount of these benefits paid by the Australian Government during 1972-73. This does not include expenditure on mental hospitals (see page 459).

**HOSPITAL, NURSING HOME, DOMICILIARY NURSING CARE AND
HANDICAPPED CHILDREN'S BENEFITS PAID, 1972-73**
(\$'000)

Type of patient	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Uninsured patients (80c)	391	168	78	40	72	20	11	9	789
Insured patients (\$2.00)(a)	10,363	6,607	2,267	2,747	2,334	747	(b)	(b)	25,066
Hospitalisation free of charge (\$2.00)	154	134	2,561	19	1	16	111	1	2,997
Pensioner patients (\$5.00)	9,427	5,143	3,651	1,896	2,175	1,130	69	194	23,684
Nursing home patients (\$3.50)	27,625	10,571	9,220	4,921	5,790	1,904	(c)	202	60,233
Intensive care nursing home patients (\$3.00)	8,840	5,444	4,087	2,205	2,883	732	(c)	62	24,251
Pensioner nursing home patients(d)	2,818	2,801	999	901	705	204	(c)	33	8,462
Domiciliary nursing care (\$2.00)(e)	321	225	191	101	100	84	(c)	(f)	1,022
Handicapped children (\$1.50)	172	77	46	69	42	19	3	(g)	429
Total	60,113	31,170	23,100	12,899	14,102	4,855	194	502	146,934

(a) Excludes payments of \$41,227,000 towards special accounts deficits, \$761,000 towards Subsidised Health Benefits Plan management expenses and \$11,082,000 towards Subsidised Health Benefits Plan hospital and nursing home fund benefit reimbursements. (b) Insured patients are shown by State of registration of organisations. No organisations are registered in the A.C.T. or N.T. and insured patients in the two territories are covered by organisations registered in the States. (c) South Australia includes Northern Territory. (d) Additional nursing home benefits for pensioner patients were introduced 1 January 1973. (e) Domiciliary nursing care benefits were introduced 1 March 1973. (f) New South Wales includes Australian Capital Territory. (g) Less than \$500.

Public hospital fees, family contribution and benefits. The daily rates of fees charged by public hospitals, the weekly family contribution to major hospital benefits organisations and the daily rates of combined Government and hospital fund benefits paid are shown in the following table.

PUBLIC HOSPITAL FEES, HOSPITAL INSURANCE PREMIUMS AND BENEFIT RATES, 1974
(\$)

State or Territory	Date from which fees applied	Ward	Daily rates of fees	Weekly family contribution to major hospital funds	Daily rates of combined Government and fund benefits paid(a)
New South Wales	1 August 1971 1 July 1972	public	15.00	0.82	15.00
		intermediate	22.30	1.28	22.30
		private	26.30	1.52	26.30
Victoria	1 September 1973	public	20.00 (e)(1.13)	0.80	20.00
		intermediate	30.00 (e)(1.75)	1.30	30.00
		private	40.00 (e)(2.38)	1.75	40.00
Queensland	1 January 1973	public	(b)	..	..
		intermediate	16.00	0.80	16.00
		private	19.00	0.98	19.00
South Australia(c)	1 September 1973	standard	20.00	0.92	20.00
		intermediate	25.00	1.28	25.00
		private	30.00	1.60	30.00
Western Australia	1 September 1971	standard	20.00	1.05	20.00
		private	30.00	1.65	30.00
		standard	18.00	0.70	18.00
Tasmania	1 January 1973	intermediate	24.00	1.00	24.00
		private	30.00	1.20	30.00
		general	6.80	(d)	(d)
Northern Territory	1 April 1967	general	15.00	0.82	15.00
		private	26.30	1.52	26.00
Australian Capital Territory	1 August 1971	general	15.00	0.82	15.00
		private	26.30	1.52	26.00

(a) Fund benefits are not paid in excess of the hospital charge. (b) No charge. (c) Not applicable to 53 country hospitals to which Part IV of the South Australian Hospitals Act applies. These hospitals are controlled by the local councils and are not subject to direction by the State Government as far as fees are concerned. The fees for these hospitals vary. (d) Covered by differing public or standard ward tables in other States. (e) Rates shown in brackets are actually being charged by major funds in Victoria, in some cases without Australian Government approval.

Public hospitals in all States now charge comprehensive daily rates of fees. Separate charges are not raised for miscellaneous hospital services. In Queensland where there is no charge for public ward accommodation, contributors insured in the intermediate and private ward tables receive a fund benefit of \$4 a day if they or their dependants occupy a free public ward bed.

A Government benefit of \$2 per day is payable to hospitals for patients hospitalised free of charge.

During the waiting period of two months after joining an organisation the Government benefit is payable at the rate of 80 cents per day, unless the organisation pays fund benefits, in which case the benefit is payable at the higher rate of \$2 per day. While a member is in arrears with his contributions and fund benefits are not payable, the benefit is payable at the rate of 80 cents per day.

Contributors who would have been excluded from fund benefits because of organisations' rules covering pre-existing ailments, chronic illnesses or maximum benefits are assured of hospital fund benefits by the provisions of the special account plan. Since 1 January 1969 such a contributor has been entitled to receive benefit at his full insured rate, provided total benefits do not exceed the amount of the hospital charge. Benefit is paid either from the ordinary account or from a special account guaranteed by the Australian Government. If the payments from the special account exceed contributions credited to the account, the amount of deficit is reimbursed by the Australian Government.

A person who joins a registered hospital benefits organisation within eight weeks of being discharged from an approved nursing home is entitled to immediate Government benefit of \$2 a day and to fund benefits without having to serve a waiting period. Also, persons ceasing to be entitled to the benefits of the Pensioner Medical Service who join a registered organisation within two months before or within three months after ceasing to be a pensioner are not required to serve the normal waiting period before becoming eligible for fund benefits. This new provision also enables such contributions to be transferred to the special account. If a qualified patient in an approved hospital is not insured (i.e. not a member of a hospital benefits organisation), a benefit of 80 cents a day is deducted from his account by the hospital. The Australian Government subsequently reimburses the hospital. Under arrangements made under the National Health Act public hospitals generally provide free public ward treatment to pensioners enrolled in the Pensioner Medical Service who are classified as public ward patients. The Australian Government pays the hospitals a benefit of \$5 a day for each pensioner patient. The hospital and medical insurance provisions were changed in 1969 to allow free insurance under certain circumstances and, from 1 July 1970, these provisions were extended to provide partial assistance with insurance to certain groups of persons. Details of this Subsidised Health Benefits Plan are set out on page 438.

Australians overseas. Australian residents who receive hospital treatment in recognised hospitals in overseas countries, while temporarily absent from Australia, are eligible to receive the Australian and fund benefits to which they would be entitled if the treatment were given in Australia.

Registered hospital benefits organisations. The following table shows the number of registered hospital benefits organisations, the membership at 30 June 1973, and fund benefits paid during 1972-73. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital insurance is considerably higher than the number of members.

HOSPITAL BENEFITS: ORGANISATIONS AND FUND BENEFITS, STATES(a) 1972-73

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Registered organisations at 30 June 1973	34	22	8	9	7	10	90
Membership at 30 June 1973 '000	1,638	1,241	411	444	367	126	4,227
Fund benefits paid (b) \$'000	93,696	66,571	19,531	25,027	22,221	6,352	233,399

(a) State of registration of organisations. No organisations are registered in the A.C.T. or N.T. and insured patients in the two territories are covered by organisations registered in the States. (b) Includes \$349,000 ancillary benefits and \$1,077,000 nursing home fund benefits and also includes \$11,082,000 fund benefits reimbursed to the organisations under the Subsidised Health Benefits Plan.

Nursing home benefits. By amendment to the National Health Act in 1972 additional nursing home benefits were introduced with effect from 1 January 1973 (see (iii) and (iv) below). The benefits now available in respect of qualified nursing home patients are:

- (i) *Ordinary Care Benefit*, currently payable at the rate of \$3.50 a day, is paid in respect of all qualified nursing home patients in institutions which have been approved as nursing homes under the National Health Act.

- (ii) *Supplementary Benefit*, introduced on 1 January 1969 to provide for the payment of \$3.00 a day in respect of patients who require and receive intensive nursing home care as defined in the National Health Act. This benefit is payable in addition to the ordinary care benefit making a total of \$6.50 a day for approved patients. Both the ordinary care benefit and the supplementary benefit are paid by the Australian Government direct to nursing home proprietors who are required to deduct such amounts from the accounts issued to patients.
- (iii) *Additional Benefit for Pensioner Patients*, introduced from 1 January 1973 in respect of patients who hold Pensioner Medical Service entitlement cards is payable direct to nursing home proprietors in the same manner as the basic nursing home benefits referred to above. Eligible pensioners are not required to take out health insurance coverage to receive this benefit which is payable in addition to the preceding benefits. The rates of benefit payable differ from State to State and are set out below.
- (iv) *Insurance Benefit for Non-pensioner Patients*. Patients who are not qualified pensioners for the purpose of receiving the additional pensioner benefit can receive the same rate of additional benefit but must insure with a registered hospital benefits organisation to obtain the benefit. This benefit is paid by the registered hospital benefit organisation direct to the nursing home.

The additional benefits ((iii) and (iv) above) are based on a minimum 'patient participation' of \$2.55 a day as provided for in the National Health Act as being an amount approximating three-quarters of a single pensioner's maximum pension including the supplementary allowances payable as at 1 January 1973.

The following table shows the maximum level of new benefits which are payable in each State.

**NURSING HOME BENEFITS: MAXIMUM
PAYMENTS: STATES, 1973**

	<i>Maximum benefits payable</i>	
	<i>Weekly</i>	<i>Daily</i>
	\$	\$
New South Wales	10.50	1.50
Victoria	22.40	3.20
Queensland	10.50	1.50
South Australia	14.00	2.00
Western Australia	11.20	1.60
Tasmania	10.50	1.50

Where the fees charged by a nursing home are in excess of the combined total of basic Government benefit (either \$3.50 or \$6.50 a day) plus the patient contribution (\$2.55 a day) plus additional benefit (to maximum shown in table above), the difference must be met by the patient. Conversely, where the nursing home fee is less than this combined total, the additional benefit (whether fund benefit or Government benefit for pensioners) is reduced by that amount.

Domiciliary Nursing Care Benefits. A domiciliary nursing care benefit became effective from 1 March 1973. In general terms it is payable, at the rate of \$14 a week, to persons who are willing and able to care, in their own homes, for aged parents or immediate relatives who would otherwise qualify for nursing home benefits. The basic criteria for the payment of the benefit are that the patient must be aged 65 years or over and be in need of continuing nursing care and receive regular visits by a registered nurse. This benefit is not subject to a means test and is payable, under the National Health Act, in addition to any entitlements that persons may have under the Social Services Act or the Repatriation Act for pensions or other supplementary allowances.

Medical Benefits

A medical benefits scheme has operated since July 1953, being authorised firstly by the National Health (Medical Benefits) Regulations and then by the National Health Act 1953-1973. The basic principle of the scheme is Australian Government support by voluntary insurance towards meeting the costs of medical attention. The benefits under the scheme relate primarily to medical attention on a fee-for-service basis, although provision is made for a Government subsidy to organisations arranging for medical service on a contract basis.

In order to qualify for a Government fee-for-service benefit, a person is required to be insured with a registered medical benefits organisation. The organisation pays the Government benefit to the contributor, usually at the time it pays its own benefit. Reimbursement of the Government benefit is subsequently made to the organisation by the Australian Government. The contribution rates vary depending on the financial experience of each registered medical benefits organisation.

On 1 July 1970 the scale of benefits paid was considerably revised so as to relate benefits to the fee commonly charged by medical practitioners for each medical service. There is one scale of benefits for each State. The level of benefits has been set so that a contributor is required to pay 80 cents of the schedule fee for a general practitioner standard consultation, and up to \$5 for the more costly operations where the schedule fee is charged. In fixing the scale of schedule fees, differential rates have been determined for certain medical services which are customarily performed by either a general practitioner or a specialist. To qualify for the higher (specialist) rate of benefit the patient must be formally referred to the specialist by another medical practitioner by means of a Notice of Referral. Higher benefits are also payable where the patient is referred to a specialist by a dentist for a service arising from a dental service, or by an optometrist or optician to an ophthalmologist.

In addition to the professional services normally rendered by a qualified medical practitioner, the scheme covers certain prescribed medical services rendered in the operating theatre of an approved hospital by a legally qualified dentist or dental practitioner approved for this purpose by the Director-General of Social Security.

Following the Report of the "Inquiry into the Fees to be adopted for General Practitioner Medical Services in New South Wales for the Purpose of the National Health Act" (Mason Inquiry) in 1972, the fees for general practitioner surgery consultations and home visits were adjusted in all States for the purpose of medical benefits with effect from 1 July 1972. In July 1973, the Australian Government established the Medical Fees Tribunal to determine fair and reasonable fees for the purpose of medical benefits. The recommendations of the Medical Fees Tribunal were handed down in two Determinations. The first Determination recommended fees for general practitioner surgery consultations and home visits, and these were implemented by the Australian Government with effect from 12 November 1973. The second Determination was handed down on 23 December 1973 and the Australian Government implemented most of these recommendations with effect from 22 April 1974.

Contributors who would otherwise be excluded from fund benefits because of organisations' rules covering pre-existing or long-term ailments, receive full fund benefits with the Australian Government re-imbursing the organisations for any deficits incurred in providing benefits in such cases.

Australian residents temporarily absent from Australia who receive medical attention by registered medical practitioners in the country they are visiting are entitled, if insured, to the Government benefit and the medical fund benefit to which they would be entitled if the service were rendered in Australia.

Expenditure on medical benefits. The following table shows the number of registered medical benefits organisations, their membership, the number of medical services rendered to members and their dependants, and payments of Government benefits and medical fund benefits to members of registered organisations. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by medical insurance is considerably higher than the number of contributors. At 30 June 1973 the estimated number of persons covered by contributory medical insurance was 10,340,000.

MEDICAL BENEFITS: SUMMARY, STATES(a), 1971-72

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>	
Registered organisations(b)	No.	29	19	8	7	8	10	81
Members(b)	'000	1,599	1,183	421	432	367	125	4,128
Medical services	'000	19,044	12,841	5,170	5,599	4,087	1,448	48,188
Government benefit(c)	\$'000	61,730	40,109	15,029	17,259	13,286	4,356	151,769
Fund benefit(d)	\$'000	53,459	33,735	11,097	10,621	7,814	2,627	119,352

(a) State of registration of organisations. No organisations are registered in the Australian Capital Territory or Northern Territory and insured persons in the two territories are covered by organisations registered in the States. (b) At 30 June 1973. (c) Excludes payments of \$5,791,000 towards special accounts deficits and \$344,000 towards management expenses of the Subsidised Health Benefits Plan. (d) Includes \$3,108,000 ancillary fund benefits and also includes \$2,271,000 fund benefits reimbursed to the organisations under the Subsidised Health Benefits Plan.

Subsidised Health Benefits Plan

As from 1 January 1970 certain low income families, persons in receipt of unemployment, sickness or special benefits under Social Services legislation, and migrants during the first two months after their arrival in Australia, have been eligible for free medical benefits and hospital benefits up to the public standard ward charge. On 1 July 1970, the Plan was extended to provide certain families whose incomes were slightly in excess of the eligible limit for free insurance, with health insurance at reduced contribution rates. The income eligibility level for free insurance in these cases, effective from 5 June 1973, was \$60.50 per week, while families with incomes from \$60.51 to \$69.50 a week pay reduced contributions. From 1 November 1971 the Plan, formerly known as the Subsidised Medical Services Scheme, was renamed the Subsidised Health Benefits Plan and a pharmaceutical concession was introduced whereby all beneficiaries were entitled to purchase drugs and medicines dispensed under the Pharmaceutical Benefits Scheme for 50 cents per prescription instead of the usual \$1.00.

Pensioner Medical Service

The Pensioner Medical Service, which commenced in 1951, was introduced under the authority of the National Health (Medical Services to Pensioners) Regulations made under the provisions of the *National Health Services Act 1948-1949*. The service has been continued under the provisions of the *National Health Act 1953-1974*.

Persons eligible to receive the benefits of the Pensioner Medical Service are those who receive an age, invalid or widow's pension, or a sheltered employment allowance, under the *Social Services Act 1947-1974*, or a service pension under the *Repatriation Act 1920-1973*, and who are able to satisfy the means test in force immediately prior to 1 October 1969; and their dependants. Also eligible are persons in receipt of an allowance under the *Tuberculosis Act 1948*, and their dependants.

The benefits provided to eligible persons consist of free medical service of a general practitioner nature such as that ordinarily rendered in the surgery or at the patient's home, including treatment at home following an operation. Patients may be charged a small fee by doctors for travelling and for attendance outside normal surgery or visiting hours. General practitioners enrolled in the scheme are paid on a fee-for-service basis by the Australian Government.

Qualified persons are entitled to a wide range of medicines without charge at any pharmacy, on presentation of a doctor's prescription. Free hospital treatment is also provided for public, standard or general ward patients in public hospitals.

At 30 June 1973 the total number of pensioners and dependants enrolled in the Pensioner Medical Service was 1,350,730, while the number of doctors participating in the scheme at that date was 6,910. During 1972-73 doctors in the scheme provided 11,107,632 services (visits and surgery consultations) for persons enrolled in the scheme. For these services they were paid \$30,825,901. The average number of services rendered by doctors to each enrolled person was 8.57.

Survey of persons covered by hospital and medical expenditure assistance schemes, August 1972

In August 1972 the Australian Bureau of Statistics conducted a survey throughout Australia in order to obtain information about the extent to which persons aged fifteen years and over were covered by hospital or medical expenditure assistance schemes, i.e. contributory hospital and medical benefits funds and non-contributory schemes such as the Pensioner Medical Service (but excluding the entitlement to free public ward treatment in Queensland hospitals (*See note (b) to table below*). The survey was based on the quarterly population survey (*See the Chapter Employment and Unemployment*).

A *hospital and/or medical benefits fund* is defined as "a non-profit organisation providing benefits towards the cost of meeting hospital and/or medical expenses; this organisation must be registered under the National Health Act". At the time of the survey there were 94 such organisations in Australia; 73 provided coverage for both hospital and medical expenses, 16 provided coverage for hospital expenses only and 5 provided coverage for medical expenses only. About one quarter of the funds restricted eligibility for membership by reference to employment, a particular profession, professional association or union.

The table of standard errors and the comments on reliability of estimates given in the chapter Employment and Unemployment, are also applicable to this survey.

Further details of the survey were published in the mimeographed bulletin *Persons Covered by Hospital and Medical Expenditure Assistance Schemes*, August 1972 (17.10)

**NON-INSTITUTIONAL POPULATION(a): COVERAGE OF
HOSPITAL AND MEDICAL EXPENDITURE ASSISTANCE SCHEMES, AUGUST 1972**

	N.S.W.	Vic.	Qld(b)	S.A.	W.A.	Tas.	Aust.(c)
MALES							
Covered	('000) 1,451.2	1,061.4	403.7	388.4	327.4	122.5	3,816.4
Not covered	('000) 205.7	164.2	242.9	30.9	34.6	14.2	708.7
<i>Total</i>	('000) 1,656.9	1,225.6	646.5	419.3	362.0	136.8	4,525.1
Per cent covered	87.6	86.6	62.4	92.6	90.5	89.5	84.3
FEMALES							
Covered	('000) 1,547.5	1,127.7	454.8	403.3	340.0	125.8	4,062.5
Not covered	('000) 142.8	125.7	191.9	18.9	17.1	10.3	517.0
<i>Total</i>	('000) 1,690.3	1,253.4	646.7	422.2	357.1	136.1	4,579.5
Per cent covered	91.6	90.0	70.3	95.5	95.2	92.4	88.7
PERSONS							
Covered	('000) 2,998.7	2,189.1	858.5	791.7	667.4	248.3	7,878.9
Not covered	('000) 348.5	289.8	434.8	49.8	51.6	24.5	1,225.7
<i>Total</i>	('000) 3,347.2	2,479.0	1,293.2	841.5	719.1	272.8	9,104.6
Per cent covered	89.6	88.3	66.4	94.1	92.8	91.0	86.5

(a) Non-institutional civilians aged 15 years and over. (b) In Queensland, patients in public wards of hospitals are not charged any fee; however, in order to be insured against private ward hospital charges or medical expenses, many people join a hospital and/or medical benefits fund. For the purposes of the survey this entitlement to free public ward treatment was not counted as an expenditure assistance scheme. Because of this circumstance, the proportion of persons covered by such schemes was lower in Queensland than elsewhere. (c) Includes the Northern Territory and the Australian Capital Territory.

**NON-INSTITUTIONAL POPULATION(a): COVERAGE OF HOSPITAL AND
MEDICAL EXPENDITURE ASSISTANCE SCHEMES, BY BIRTHPLACE, AUGUST 1972**

Birthplace	Covered (^{'000})	Not covered (^{'000})	Total (^{'000})	Per cent covered(b)	
				Australia	Australia, excluding Queensland
MARRIED MALES					
Australia	1,965.3	207.6	2,172.9	90.4	93.9
Overseas	781.5	118.5	900.0	86.8	88.7
<i>Total</i>	<i>2,746.7</i>	<i>326.1</i>	<i>3,072.9</i>	<i>89.4</i>	<i>92.3</i>
Greece	40.6	18.7	59.3	68.4	67.8
Italy	102.3	17.1	119.4	85.7	86.9
United Kingdom and Ireland	324.3	34.7	359.0	90.3	92.7
Yugoslavia	42.1	8.9	51.1	82.5	84.9
ALL MALES					
Australia	2,841.8	487.0	3,328.8	85.4	89.7
Overseas	974.6	221.7	1,196.3	81.5	83.6
<i>Total</i>	<i>3,816.4</i>	<i>708.7</i>	<i>4,525.1</i>	<i>84.3</i>	<i>88.0</i>
Germany (Federal Republic)	34.2	4.4	38.6	88.6	90.9
Greece	45.6	27.9	73.5	62.0	61.6
Italy	116.5	32.6	149.1	78.1	79.2
Netherlands	49.3	4.9	54.2	91.0	94.5
New Zealand	26.0	8.3	34.2	75.9	79.3
United Kingdom and Ireland	468.3	63.2	471.5	86.6	89.5
Yugoslavia	50.6	15.5	66.1	76.6	79.2
FEMALES					
Australia	3,165.8	362.2	3,528.0	89.7	93.3
Overseas	896.7	154.8	1,051.5	85.3	86.9
<i>Total</i>	<i>4,062.5</i>	<i>517.0</i>	<i>4,579.5</i>	<i>88.7</i>	<i>91.7</i>
Germany (Federal Republic)	31.5	4.5	36.0	87.4	91.3
Greece	43.1	25.4	68.5	63.0	62.5
Italy	105.0	19.6	124.6	84.3	85.1
New Zealand	22.6	7.0	29.6	76.5	81.5
United Kingdom and Ireland	396.4	48.2	444.6	89.2	91.2
Yugoslavia	40.2	9.3	49.5	81.2	83.3
PERSONS					
Australia	6,007.6	849.2	6,856.8	87.6	91.6
Overseas	1,871.3	376.5	2,247.8	83.3	85.1
<i>Total</i>	<i>7,878.9</i>	<i>1,225.7</i>	<i>9,104.6</i>	<i>86.5</i>	<i>89.9</i>
Germany (Federal Republic)	65.7	9.0	74.6	88.0	91.1
Greece	88.7	53.3	142.0	62.5	62.0
Italy	221.5	52.2	273.7	80.9	81.9
Malta	47.0	5.2	52.3	90.0	89.8
Netherlands	90.4	7.3	97.7	92.5	95.8
New Zealand	48.6	15.2	63.8	76.1	80.3
United Kingdom and Ireland	804.7	111.4	916.2	87.8	90.3
Yugoslavia	90.8	24.8	115.5	78.6	81.0

For footnotes see previous table.

Northern Territory and Australian Capital Territory welfare services

Provision of social security and welfare services in these two Territories is the responsibility of the Australian Government. In so far as welfare items can be identified for territorial accounting purposes, the following table shows the cost of providing these services.

**AUSTRALIAN GOVERNMENT EXPENDITURE ON SOCIAL SECURITY AND WELFARE^(a)
NORTHERN TERRITORY AND AUSTRALIAN CAPITAL TERRITORY
(\$'000)**

	1968-69	1969-70	1970-71	1971-72	1972-73
Northern Territory—					
Current outlay	5,536	8,206	8,027	8,478	10,570
Gross capital formation (b)	739	478	455	348	623
Total outlay	6,275	8,684	8,482	8,826	11,193
Australian Capital Territory—					
Current outlay	484	304	395	635	756
Capital outlay—					
Gross capital formation (b) . . . . .	..	..	..	..	..
Total outlay	484	304	395	635	756

(a) Includes expenditure on aboriginal affairs. (b) Expenditure on fixed assets and increase in stocks.

Aboriginal welfare

A referendum in May 1967 led to the repeal of Section 127 of the Constitution which provided that in reckoning the numbers for census purposes, Aborigines should not be counted; and to the deletion of the words 'other than the Aboriginal race in any State' from Section 51 (xxvi) which relates to the power of the Commonwealth Parliament to make laws in respect to people of any race. The Australian Government, whose aim is to help Aborigines become self-supporting, while at the same time preserving and developing their own distinctive culture, now shares with the States power and responsibilities for the well-being of Aborigines; it also has full responsibility for Aboriginal affairs in the Northern Territory. The Department of Aboriginal Affairs is working towards co-ordinating national policies affecting Aborigines. Negotiations are taking place with all States for the Australian Government to take over policy planning and co-ordinating functions, and at 1 June 1974, the take-over had occurred in South Australia and Western Australia. The Department also serves the Council for Aboriginal Affairs, comprising a Chairman and two members. In November 1973 an election was held by Aborigines throughout Australia to establish the first National Aboriginal Consultative Committee, a group of 41 Aborigines and Islanders which will be elected every two years, to advise the Government on Aboriginal needs.

Outlays by Australian Government authorities, which have been identified as specifically relating to Aboriginal advancement, are shown in the following table.

**OUTLAY ON ABORIGINAL ADVANCEMENT BY AUSTRALIAN GOVERNMENT
AUTHORITIES**

(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Final consumption expenditure—					
Law, order and public safety . . . . .	..	..	24	28	638
General research	295	358	369	429	449
Education	1,704	1,888	2,954	3,353	4,057
Health	397	389	393	603	1,069
Welfare	5,665	8,317	8,104	8,936	12,396
Housing	55	64	89	32	844
Community development . . . . .	..	..	1	4	1
Recreation . . . . .	..	56	77	115	466
Labour and employment	31	227	601	838	1,249
<i>Total final consumption expenditure</i>	<i>8,147</i>	<i>11,299</i>	<i>12,612</i>	<i>14,338</i>	<i>21,169</i>
Gross capital formation—					
Expenditure on new fixed assets—					
General research	58	55	57	41	64
Education	252	2,610	851	632	2,263
Health	153	39	103	7	177
Welfare	314	441	1,057	330	623
Housing . . . . .	..	44	518	860	784
Community development	444	221	290	975	1,388
<i>Total expenditure on new fixed assets</i>	<i>1,221</i>	<i>3,410</i>	<i>2,876</i>	<i>2,845</i>	<i>5,299</i>
Expenditure on existing assets—					
Community development . . . . .	..	..	..	..	1,547
<i>Total gross capital formation</i>	<i>1,221</i>	<i>3,410</i>	<i>2,876</i>	<i>2,845</i>	<i>6,846</i>
Transfer payments—					
Transfers to persons	62	712	2,527	3,012	4,920
Grants for private capital purposes	938	1,594	2,168	2,283	6,829
Grants to the States—					
Current	319	596	800	1,665	6,649
Capital	3,331	4,814	6,200	7,535	15,351
<i>Total transfer payments</i>	<i>4,650</i>	<i>7,716</i>	<i>11,695</i>	<i>14,495</i>	<i>33,749</i>
Net advances—					
To the States . . . . .	..	350	..	-59	-35
To other sectors	24	417	725	614	1,123
<i>Total net advances</i>	<i>24</i>	<i>767</i>	<i>725</i>	<i>555</i>	<i>1,088</i>
Total outlay	14,042	23,192	27,909	32,233	62,852

State expenditure on certain welfare services

The following table shows net expenditure from State government funds on certain welfare services. The figures exclude expenditure on unemployment, bush fire, flood, etc., relief, Aboriginal welfare, and some other items which are excluded because information cannot be obtained for all States. Loan fund expenditure is excluded also. Because of differences in organisation and accounting methods, the information shown for both items is not on exactly the same basis for all States; it may also be incomplete because particulars of some activities are not separately recorded and are therefore excluded. The expenditure shown is 'net' in the sense that receipts for services rendered have been deducted from gross expenditure.

NET EXPENDITURE BY STATE GOVERNMENTS ON CERTAIN WELFARE SERVICES
(S'000)

<i>Service and year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Total</i>
1972-73—							
Relief of aged, indigent and infirm, child welfare, etc.	39,477	26,042	15,781	12,188	13,886	3,681	111,055
Miners' phthisis	47	45	..	..	78	..	170
Total 1972-73	39,524	26,087	15,781	12,188	13,964	3,681	111,225
Total—							
1971-72.	32,500	23,140	11,874	9,152	12,838	3,154	92,659
1970-71.	24,275	17,965	10,041	7,053	10,320	2,876	72,531
1969-70.	20,727	14,317	9,498	5,768	8,817	1,966	61,094
1968-69.	19,638	12,823	8,662	5,268	7,496	2,228	56,115

Surveys by the Australian Department of Social Security

Recent surveys conducted by the Department of Social Security include the following.

Survey of age, invalid and widow pensioners in New South Wales and Victoria, March 1971

Details of the survey of the characteristics of age, invalid and widow pensioners in New South Wales and Victoria, covering approximately two-thirds of all such pensioners in Australia, carried out by the then Department of Social Services in March 1971, are shown in Year Book No. 58, pages 411-15.

Morbidity surveys of invalid pensioners in New South Wales and Victoria

Details of the two separate surveys of the major disabilities of invalid pensioners in New South Wales and Victoria undertaken during 1970 by the then Department of Social Services are shown in Year Book No. 58, pages 415-16.

Morbidity survey of new invalid pensioners

A survey of the major causes of disabilities of new invalid pensioners was undertaken in Queensland, South Australia, Western Australia and Tasmania during the year 1972-73 by the then Department of Social Services. Details of new pension grants during the period July to December 1971, classified by age groups and major cause of disability, are shown in Year Book No. 59, page 419.

Survey of relative ages of married male age pensioners and their wives

The survey was undertaken in New South Wales and the Australian Capital Territory at 30 June 1973. Of the estimated 67,000 married male age pensioners, 28,200 (42.2 per cent) were in the age group 65-69 years, 21,500 (32.2 per cent) were in the age group 70-74 years, and 17,200 (25.7 per cent) were 75 years of age or over. About one third of the pensioner wives were less than 65 years of age.

RELATIVE AGES OF MARRIED MALE AGE PENSIONERS AND WIVES^(a) NEW SOUTH WALES AND AUSTRALIAN CAPITAL TERRITORY 30 JUNE 1973

<i>Age group of wife (years)</i>	<i>Estimated percentage distribution</i>			
	<i>Age group of husband (years)</i>			
	<i>65-69</i>	<i>70-74</i>	<i>75 and over</i>	<i>Total</i>
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
Under 50	1.5	0.6	0.3	0.9
50-54	4.0	1.8	0.6	2.4
55-59	13.0	5.3	1.9	7.7
60-64	38.3	16.5	5.8	22.9
65-69	34.9	37.9	14.4	30.6
70-74	6.9	30.7	28.4	20.1
75 and over	1.4	7.2	48.6	15.4
Total (percent)	100.0	100.0	100.0	100.0
Total (numbers)	28,200	21,500	17,200	67,000

(a) Includes age, invalid and service pensioners, and women receiving a wife's pension.

Survey of age, invalid and widow pensioners

A survey of age, invalid and widow pensioners was carried out by the Australian Department of Social Security in New South Wales, Victoria and the Australian Capital Territory at 30 June 1973. The next two tables show the age and invalid pensioners classified by sex and category of pensioner and widow pensioners by class of widow and other selected characteristics, respectively.

**AGE AND INVALID PENSIONERS^(a) BY SELECTED CATEGORIES
ESTIMATED PERCENTAGE DISTRIBUTION: NEW SOUTH WALES, VICTORIA AND
THE AUSTRALIAN CAPITAL TERRITORY, 30 JUNE 1973**

Category of pensioner	Age pensioners			Invalid pensioners		
	Males	Females	Persons	Males	Females	Persons
	per cent	per cent	per cent	per cent	per cent	per cent
1. Standard rate—						
Maximum rate	n.a.	n.a.	48.55	n.a.	n.a.	61.60
Reduced rate	n.a.	n.a.	9.79	n.a.	n.a.	5.67
Total	10.45	47.89	58.34	32.36	34.91	67.27
Married rate—						
Maximum rate	n.a.	n.a.	34.15	n.a.	n.a.	27.22
Reduced rate	n.a.	n.a.	7.50	n.a.	n.a.	5.51
Total	20.29	21.36	41.66	24.66	8.07	32.73
All pensioners—						
Maximum rate	n.a.	n.a.	82.70	n.a.	n.a.	88.82
Reduced rate	n.a.	n.a.	17.30	n.a.	n.a.	11.18
Total	30.75	69.25	100.00	57.02	42.98	100.00
2. With supplementary assistance	4.15	11.64	15.80	24.10	19.33	43.43
Without supplementary assistance	26.59	57.61	84.20	32.92	23.65	56.57
Total	30.75	69.25	100.00	57.02	42.98	100.00
3. With fringe benefits	27.53	62.45	89.98	54.26	40.75	95.02
Without fringe benefits	3.22	6.80	10.02	2.75	2.23	4.98
Total	30.75	69.25	100.00	57.02	42.98	100.00
4. Home owners	21.40	42.81	64.21	19.77	12.02	31.79
Non home owners	9.35	26.44	35.79	37.24	30.96	68.21
Total	30.75	69.25	100.00	57.02	42.98	100.00
5. Receiving age, or invalid pensions and war pension	0.99	6.13	7.12	3.15	2.23	5.38
Receiving age or invalid pension only	29.76	63.13	92.88	53.87	40.75	94.62
Total	30.75	69.25	100.00	57.02	42.98	100.00
Number of pensioners	179,300	417,000	596,300	55,300	40,900	96,200

(a) Excludes females in receipt of a wife's pension.

**SOCIAL SECURITY WIDOW PENSIONERS BY SELECTED
CATEGORIES: ESTIMATED PERCENTAGE DISTRIBUTION: NEW
SOUTH WALES, VICTORIA AND THE AUSTRALIAN CAPITAL
TERRITORY, 30 JUNE 1973**

<i>Category of pensioner</i>	<i>Class A</i>	<i>Class B</i>	<i>Total(a)</i>
	per cent	per cent	per cent
1. Maximum rate	80.30	85.57	82.68
Reduced rate	19.70	14.43	17.32
<i>Total</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>
2. With supplementary assistance	31.46	20.22	26.38
Without supplementary assistance	68.54	79.78	73.62
<i>Total</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>
3. With fringe benefits	90.32	92.78	91.43
Without fringe benefits	9.68	7.22	8.57
<i>Total</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>
4. Home owners	37.66	49.81	43.15
Non home owners	62.34	50.19	56.85
<i>Total</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>
5. De jure widows	42.22	80.53	59.54
Divorcees	13.48	9.30	11.59
Deserted wives	41.93	8.83	26.97
Other	2.36	1.34	1.90
<i>Total</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>
6. Class A: 1 child	40.41	..	40.41
2 children	31.44	..	31.44
3 children	16.52	..	16.52
4 or more children	11.63	..	11.63
<i>Total</i>	<i>100.00</i>	..	<i>100.00</i>
7. Receiving widow's pension and war pension	n.a.	n.a.	4.51
Receiving widow's pension only	n.a.	n.a.	95.49
<i>Total</i> . . . . .	..	..	<i>100.00</i>
Number of widow pensioners	37,200	30,400	67,500

(a) Excludes Class 'C' widows.

Survey of the characteristics of unemployment benefit recipients, 1 December 1973

The Australian Department of Social Security conducted a survey of characteristics of unemployment benefit recipients at 1 December 1973. At the date of the survey there were 30,536 recipients of unemployment benefit in Australia. The following table classifies the beneficiaries by selected characteristics and by duration of benefit.

UNEMPLOYMENT BENEFIT RECIPIENTS BY DURATION AND SELECTED CHARACTERISTICS; DECEMBER 1973
(Percentage distribution)

	<i>Duration of benefit</i>		
	<i>Six months or more</i>	<i>Less than six months</i>	<i>Total</i>
Sex—	per cent	per cent	per cent
Male	62.4	61.9	62.2
Female	37.6	38.1	37.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Age group—			
16-19 years	25.2	39.7	36.9
20-29 years	19.2	25.9	24.6
30-39 years	10.1	10.1	10.1
40-49 years	15.6	10.7	11.6
50-59 years	19.3	9.6	11.4
60 years and over	10.6	4.0	5.3
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Marital status—			
Not married	74.6	78.7	77.9
Married	25.4	21.3	22.1
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Dependants—			
No dependants	75.4	79.1	78.4
Spouse only	9.3	6.4	7.0
Spouse and children	15.1	14.2	14.4
Children only	0.2	0.2	0.2
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Birthplace—			
Australian born	78.0	80.5	80.1
Indigenous persons	5.0	5.5	5.4
Not Australian born (British)	4.5	6.1	5.6
Not Australian born (other)	12.6	7.9	8.3
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Occupation—			
Rural, fishing, etc.	3.0	3.3	3.3
Professional, etc.	1.5	3.7	3.3
Administrative, etc.	21.2	30.2	28.5
Skilled manual workers	3.3	6.5	5.9
Manual workers, n.e.i.	21.1	16.9	17.7
Unskilled manual workers	26.1	25.7	25.8
Protective service	0.4	0.1	0.2
Other service (not private household)	12.9	7.7	8.7
Private domestic service	10.5	6.0	6.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
Number of unemployment benefit recipients	5,802	24,734	30,536

Social Welfare Commission

The Australian Government's Social Welfare Commission was formed early in 1973 and operates under the *Social Welfare Commission Act 1973*.

The functions of the Commission are to recommend priorities in the development of social welfare programs consistent with the development of a balanced and integrated national program of social welfare. An important responsibility of the Commission is to identify and report on community needs in the welfare field.

The Commission consists of 9 part-time members and 2 full-time members, and reports to the Minister for Social Security.

The Commission has published the following reports: the First Annual Report, Australian Assistance Plan Discussion Paper No. 1, the Australian Assistance Plan Progress Report and the Interim Report of the Committee of Inquiry into Aged Persons' Housing.

The Australian Assistance Plan is being administered during its initial phase by the Social Welfare Commission. The aim of the Plan is to integrate and improve welfare services through the combined efforts of Australian, State and local government agencies and voluntary organisations and local community effort. The main purpose of the Plan is to establish social planning units in each regional community so that responsibility for programs and policies may be transferred as far as possible to the community directly affected.

These projects are expected to provide useful information and to assist in the formation of Regional Councils for Social Development in all areas of Australia.

The Commission has established the following permanent standing committees: Inquiry into Aged Persons' Housing, Working Party on Social Welfare Manpower, Research Advisory Committee, Family and Child Welfare, Social Welfare of Aborigines, Social Welfare of Ethnic Minorities, Welfare of the Handicapped, Welfare of the Aged, Income Maintenance Systems and Housing and Urban Affairs.

While the Commission is not a funding body for general research projects, it will provide funds for research projects which come within its scope. A fellowship scheme has also been established to enable academics or experienced people to be attached to the Commission for brief periods and to carry out research or conduct studies in a relevant field.

The role of voluntary agencies in Australian social welfare

Voluntary agencies have played an important role in the provision of social welfare services in Australia since the earliest days of settlement. The oldest voluntary organisation in Australia is the Benevolent Society of New South Wales, founded in 1818, 'to relieve the poor, the distressed, the aged and the infirm'. During the 19th century voluntary agencies were active in all States providing homes for orphan and abandoned children; industrial schools for older boys and girls often rescued from total destitution in the streets; relief in food and clothing for widows, old people and families of the unemployed; hospitals for the sick poor; and institutions for the aged and invalid.

Although in this century the Australian and State Governments have taken over many tasks formerly carried out by voluntary agencies, this has not led to any diminution in voluntary activity. The voluntary sector is probably more active today than it has ever been, not only carrying out its traditional role, but in opening up new fields of activity.

In caring for the aged, voluntary agencies are co-operating with the Government in providing aged persons homes, retirement villages, hostels for the frail aged and nursing homes for the sick aged. In addition to the provision of residential care, voluntary agencies are increasingly offering service to the aged in their own homes to enable them to be independent as long as possible. Services include 'Meals on Wheels', home help, leisure programs in senior citizens centres, friendly visiting to the lonely aged and sheltered workshops to provide meaningful activity, and many similar services designed to enhance the well-being of the aged.

The same pattern of activity is seen in services for the mentally and physically handicapped. Voluntary agencies provide day and residential schools for handicapped children, sheltered workshops for those able to undertake some employment and hostels for the handicapped in both sheltered and open employment. Many organisations provide home visiting services and occupational therapy for the home-bound, special training centres for various forms of rehabilitation, and recreational programs for those unable to participate in general community activities. The handicapped field is also noted for its activities in bringing together self help groups of the handicapped and their families to promote the well being of the handicapped and to encourage study and research into both prevention and rehabilitation.

Besides the various forms of health services described above, many major hospitals are provided by the voluntary sector. Of the approved hospitals in Australia, almost 15 per cent are run by voluntary organisations. Such hospitals cover a wide range of needs and in addition provide nursing training which may ultimately be of service to the full range of hospitals and nursing homes.

Family and child welfare has long been an important area for voluntary activity. Children's homes provide for children deprived of normal home life because of serious problems within the family, in a wide variety of units ranging from the small family group home in an ordinary house in the suburbs, to the large unit of cottage homes grouped together. As with other services, recent years have shown a marked emphasis on preventive services through family welfare agencies and to greater use of substitute families in adoption and foster care programs.

Within the modern family welfare agency, assistance is given not only with money and food, as in the last century, but with marriage guidance, parental counselling and home-maker services, all designed to keep the family together as a unit. Other voluntary agencies run services for the single mother or provide day-care services to assist working mothers, in particular the one parent family or the family under special strain.

The well-being of Australian youth is also a matter of concern to the voluntary sector which runs youth activities of many varieties, offers adolescent counselling services and is showing a growing concern for the seriously emotionally disturbed and those becoming addicted to drugs.

As well as these general community services, special services for Aborigines have been a feature of voluntary activity. Formerly these were mainly concerned with the mission area but of late many agencies have been formed, often run wholly by Aborigines, to assist urban dwellers. Legal aid services, head start programs, nutrition programs and many others are now being made available through voluntary effort.

The care of immigrants is also a significant activity and again much of this work is now undertaken by settled immigrants in conjunction with longer established Australians.

Prisoners and ex-prisoners also receive their share of attention. Organisations exist to visit prisoners and assist their families. These will also assist prisoners on discharge, to re-settle in the community, either at home, in lodgings or in hostels provided by the agency. Other agencies concern themselves with alcoholics, homeless men and women and others temporarily destitute.

The list of activities by no means covers all the work done by the voluntary sector. New and experimental services such as Lifeline and Samaritans, drug contact centres, drop-in coffee houses, street workers for alienated youth and many others, are evidence of the continued ability of the voluntary sector of social welfare to develop and meet new social needs.

Another area of developing interest involves the participation of various kinds of citizen groups in social welfare services. These include Community Information Centres and Community Aid services largely manned by volunteers; groups of clients of social welfare services who provide both a service for their members and liaise with Departmental services on questions of the way service is offered to people in need; and Resident Action groups who are concerned to participate in any replanning of their neighbourhood. This area of citizen involvement can be expected to become more and more important over the next few years.

During 1973 and 1974 many new fields of activities opened up for voluntary groups. The Australian Assistance Plan (*see page 447*) is aiming to involve a wide range of community groups through Regional Councils of Social Development in the planning and development of local community services. Grants available from the Schools Commission to groups to provide programs for disadvantaged children, and from the Department of Recreation and Tourism to provide for voluntary activity by and for young people.

Studies of social needs and of the quality and the adequacy of present services are a continuing concern of the voluntary sector which has joined together with the statutory sector in Councils of Social Service at the State and the national level to promote the well-being of the deprived and disadvantaged sections of the community and the general social development of Australia.

CHAPTER 14

PUBLIC HEALTH

This chapter is concerned with the activities of the Australian Department of Health, including quarantine, national health benefits, and Federal grants for health purposes; activities of the State health departments; statistics of hospitals and nursing homes, hansenide hospitals, and mental health institutions; statistics of notifiable diseases; and cremations. Statistics relating to causes of death are presented in Chapter 8, Vital Statistics (Pages 197–202).

Further information about the administration of public health services is contained in the annual reports of the Director-General of Health; the annual reports of the State health authorities; and in the Year Books and annual bulletins published by the State offices of the Australian Bureau of Statistics. For more detailed statistics of in-patient institutions, see the Bureau's annual bulletin *Hospitals and Nursing Homes* (Reference No. 16.1).

NATIONAL HEALTH SERVICES

Prior to an amendment to the Constitution in 1946 the only health function of the Australian Department of Health was in relation to quarantine. Consequent upon this amendment the Australian Government was given powers to make laws in respect to pharmaceutical, hospital and sickness benefits and medical and dental services. The responsibility for hospital and medical benefits was transferred to the Department of Social Security in 1972. In the same year the Department of Tourism and Recreation was established to administer Australian Government activities and encourage development in these fields. Amongst these activities, administration of the National Fitness Trust Fund had previously been the responsibility of the Department of Health. The Australian Government also has used its powers under section 96 of the Constitution to make grants to the States for health purposes. In addition the Australian Government gives financial assistance to certain organisations concerned with public health matters. A number of Australian Government health organisations have been established; detailed information on the functions and operations of these organisations is given in this and previous Year Books and in the annual reports of the Australian Director-General of Health.

Quarantine

The *Quarantine Act 1908–1973* is administered by the Australian Department of Health and has three sections of disease control, as follows: (i) human quarantine; (ii) animal quarantine; and (iii) plant quarantine.

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Australian Government action is necessary for the protection of any State or States. In general the administration of interstate movements of animals and plants is left in the hands of the States.

Human quarantine

With a few exceptions, which concern persons who have spent at least 14 days in areas adjacent to Australia (e.g. New Zealand, Papua New Guinea, Fiji and Lord Howe Island) all passengers and crews arriving in Australia from overseas, whether by air or sea, are subject to medical inspection for the purpose of preventing the introduction of disease into Australia. At the major ports full-time quarantine officers carry out the work, but in the minor ports local doctors act as part-time quarantine officers. Quarantine activities are controlled by the Directors of Health in each State who are senior medical officers of the Australian Department of Health.

The main concern of the examining officers is to detect cases of the quarantinable diseases smallpox, cholera, yellow fever, plague, and typhus fever. These diseases are not endemic to Australia and it is of great importance to prevent their entry. Quarantine stations at the major ports and at Darwin and Townsville are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken-pox, mumps, scarlet fever, and measles are directed to appropriate care and placed in isolation where necessary.

Valid International Certificates of Vaccination are required of travellers to Australia as follows:

Smallpox. All arrivals from all countries except American Samoa, Antarctic Territories, Canada, Christmas (Indian Ocean), Cocos (Keeling) and Cook Islands, Fiji, French Polynesia, Gilbert and Ellice Islands Colony (including Ocean and Fanning Islands), Lord Howe Island, Nauru, New Caledonia, New Hebrides, New Zealand, Niue and Norfolk Islands, Papua New Guinea, Solomon and Tokelau Islands, Tonga, United States of America, Western Samoa, provided travellers have not been outside these areas for at least fourteen days before arrival and that these areas are free from smallpox. Australia reserves the right, in respect of arrivals from other countries, to isolate any person who arrives by air without a smallpox vaccination certificate and refuses to be vaccinated. Children under one year of age are exempt. For passengers arriving in Australia by sea, exemption is granted to infants under twelve months of age and to persons who hold religious convictions against vaccination or who are suffering from a medical condition certified by a medical practitioner to contra-indicate smallpox vaccination.

Cholera. All arrivals from countries with locally infected areas. No certificate is required in respect of children under one year of age.

Yellow fever. All arrivals from yellow fever endemic zones.

All passengers, whether they arrive by sea or air, are required to give their intended place of residence in Australia, so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

Isolation. Under the Quarantine Act, airline and shipping operators are responsible for the expenses of isolation of all travellers who disembark either (i) having been in a country with locally infected areas, within 5 days of arrival and not possessing a cholera vaccination certificate; or (ii) having been in an endemic zone within 6 days of arrival and not possessing a yellow fever vaccination certificate; or (iii) having arrived by air without a smallpox vaccination certificate and refusing to be vaccinated on arrival.

The numbers of cases of infectious (non-quarantinable) diseases which were discovered among the passengers and crew of overseas vessels and aircraft calling at Australian ports are shown in the following tables.

**HUMAN QUARANTINE: CASES OF INFECTIOUS
(NON-QUARANTINABLE) DISEASES ON OVERSEAS
VESSELS AND AIRCRAFT CALLING AT
AUSTRALIAN PORTS 1972-73**

<i>Disease</i>	<i>Total number of cases of infectious disease</i>
Chicken pox	36
Dysentery	2
Gastro-enteritis	45
Glandular fever	2
Infectious dermatitis	5
Infectious hepatitis	4
Influenza	13
Leprosy	15
Measles	53
Meningitis	5
Mumps	16
Rubella	2
Salmonella infection	4
Tuberculosis	1
Venereal disease	308
Total	511

HUMAN QUARANTINE: OVERSEAS VESSELS AND AIRCRAFT ARRIVING IN AUSTRALIA AND CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES FOUND

Year	Number of Overseas vessels and aircraft cleared		Number of cases of infectious disease
	Ships	Aircraft	
1969-70	5,297	6,887	840
1970-71	6,233	8,127	562
1971-72	5,872	7,895	477
1972-73	5,975	11,879	511

The provisions of the State Health Acts with regard to the compulsory notification of infectious diseases and statistics of cases notified in the years 1969 to 1973 are dealt with on pages 469-70 of this chapter.

Animal quarantine

Animal quarantine, authorised by the provisions of the *Quarantine Act 1908-1973*, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures associated with animal diseases, and goods associated with animals.

Of the domesticated animals, only horses, dogs and cats, are admitted from a limited number of countries outside Australasia depending on diseases being absent in the country of origin. Cattle, sheep, goats and pigs may be imported only from New Zealand. All must be accompanied by health certificates which may include prescribed tests. Dogs and cats, except those from New Zealand, are subject to quarantine detention on arrival in Australia. Zoological specimens are imported into registered zoos, where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a similar manner, animals for scientific purposes are imported to approved laboratories. All these premises are kept under constant surveillance. Bovine semen may be imported only from the United Kingdom, Ireland, Canada and New Zealand. Raw animal products such as hair, types of wool, skins, and hides are specially treated under quarantine control. Such items as raw meat, which cannot be sterilised, are admitted only from New Zealand. Other items may be treated to destroy any possible infection. Special attention is given to the importation of biological substances of animal origin. The Animal Quarantine Service is also responsible for the health certification of animals for export overseas in accordance with the requirements of the various countries.

The Division of Animal Quarantine was created in 1926. The central administration is situated within the Health Department in Canberra, with an Assistant Director-General and veterinary officers. The Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of that State, and members of his staff Quarantine Officers (Animals). These State officers carry out the quarantine policy formulated by the central administration. Quarantine accommodation is provided in permanent animal quarantine stations at each State capital.

The Division participates in world-wide international notifications of the more serious contagious diseases of animals and maintains a register of such diseases throughout the world. Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications. Consultation on technical matters is maintained with various scientific institutions. In matters of policy and the quarantine control of imports there is a close liaison with the Department of Customs and Excise.

The Division collaborates with the General and Plant Divisions of the quarantine service. Many diseases of animals are communicable to man, and for this reason animal and general quarantine administration are in some respects inseparable. Similarly the interests of animal and plant divisions overlap, many items such as insects, fodder and straw being the subject of combined control.

Plant quarantine

Australia is free of many of the pests and diseases of agriculture which occur in other parts of the world. Since 1 July 1909 the importation into Australia of plant materials has been subject to an increasingly stringent quarantine; some materials are admitted only under certain conditions while others are prohibited altogether. The quarantines are designed to keep out of the country any additional pests and diseases which, while not a danger in their natural habitat, may thrive in the Australian environment and, if introduced, bring about serious economic losses to Australian agriculture.

The quarantine of plants and plant material entering Australia is the responsibility of the Australian Government; the State Governments provide co-operation in the operation of the plant quarantine service. The movement of specified fruits and other plant materials within Australia is the responsibility of the State Governments.

The Australian Government regulations governing plant quarantine apply to all plants or parts of plants, whether living or dead, and include seeds and fruits as well as timber, soil, living insects, cultures of organisms, containers, machinery, vehicles, furniture, packing materials and some foods, toys, sporting goods or tools of trade. All such goods must be declared whether they are imported as commercial consignments or as personal effects, curios, souvenirs and unprocessed food carried in luggage or on the persons of tourists, immigrants or other travellers. Heavy penalties are laid down for evasion of the regulations.

Quarantine inspectors are required to examine all plant material at the first port of entry and to release only material which is not considered to be a danger to agriculture or for which prior approval to import has been obtained. Any material found to be carrying diseases or pests, or suspected of doing so, may be ordered into quarantine for remedial treatment, the cost of which is met by the importer. All bamboo, cane and rattan articles are automatically fumigated. Destruction may be ordered where treatment or return to sender is impracticable, or no prior approval has been obtained, or the goods are prohibited imports.

Certain material, such as nursery stock and some seeds, may be imported only with special permission, and then in small quantities sufficient merely to establish a variety or strain. Arrangements must be made for this material to be grown in post-entry quarantine in Australia at a nursery registered by the Australian authorities. Application to import goods of this nature must be lodged in advance with the Chief Quarantine Officer (Plants) of the State Department of Agriculture in the capital city of the State of destination or with the Director of Quarantine in Canberra. Other restricted seeds or materials of plant origin for use as human or animal food or for manufacturing purposes, may have to be processed under quarantine supervision, and imports of this description also require prior approval.

Strict supervision by way of inspection and treatment, where necessary, is exercised over the timber components as well as the contents of cargo containers and unit cargoes. Packing materials of straw, raw cotton, rice hulls or rice straw are prohibited imports which will be destroyed at the port of entry. Cases or cartons which have previously contained fruit or plant materials are prohibited imports, while dunnage and scantlings used in containers or cargo holds are subject to quarantine. All timber, including logs or sawn timber, is carefully inspected to ensure that it does not contain insects which could spread to forests or timber constructions.

Facilities for quarantine treatments and inspections including the propagation of plants and seeds are available in each State, the Northern Territory and in the Australian Capital Territory where a plant quarantine research station has been established to undertake research into plant quarantine techniques and special treatments not usually investigated by established research groups within Australia or overseas. The Plant Quarantine Research Station in Canberra is equipped to undertake studies in the disciplines of plant pathology, entomology, nematology and virology as well as providing assessment and development of quarantine equipment and treatments.

Additional information concerning Australian plant quarantine regulations, treatments and lists of prohibitions and restrictions, may be obtained from Australian consular offices abroad, the Director of Plant Quarantine with the Australian Department of Health in Canberra or from the Chief Quarantine Officer (Plants) with the respective State Departments of Agriculture in Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart.

Personal health services and subsidies

National Health Benefits

For details of Hospital and Medical and other related benefits administered by the Department of Social Security see Chapter 13, Social Security and Welfare Services.

Milk for school children scheme

Under the *States Grants (Milk for School Children) Act 1950* the Australian Government has reimbursed the States for the cost of one third of a pint of milk supplied free to children under the age of thirteen years attending primary and other schools. At the end of 1972 approximately 1,913,000 children were entitled to receive free milk. The scheme was discontinued as from the 1974 school year. Australian Government expenditure under the scheme during the past five years was as follows.

AUSTRALIAN GOVERNMENT EXPENDITURE ON MILK FOR SCHOOL CHILDREN
SCHEME
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968-69	3,380	2,641	1,549	1,065	800	431	110	109	10,085
1969-70	3,458	2,650	1,570	910	800	476	95	124	10,083
1970-71	3,497	2,350	1,697	895	838	682	115	126	10,199
1971-72	3,662	3,501	1,869	1,065	1,001	516	127	153	11,894
1972-73	4,010	3,000	1,990	1,013	1,090	394	139	145	11,781

The figures in the foregoing table represent amounts reimbursed to the States in each financial year for cash benefits to persons and other related expenditure and are not the actual State expenditures in that year.

Pharmaceutical benefits

All persons receiving treatment from a medical practitioner registered in Australia are eligible for benefits on a comprehensive range of drugs and medicines when supplied by an approved pharmacist upon presentation of a prescription, or by an approved hospital to patients receiving treatment at the hospital. Special arrangements exist to cover prescriptions dispensed at locations outside the normal conditions of supply, e.g. in remote areas.

Patients, other than eligible pensioners and their dependants and those covered by provisions relating to the Subsidised Health Benefit Plan (see page 438), pay a contribution of \$1.00 for each benefit prescribed. Total cost of prescriptions for eligible pensioners and their dependants is met in full by the Australian Government. Patients qualifying under the Subsidised Health Benefit Plan contribute 50 cents for each benefit prescription supplied. Prior to November 1971 all patients other than eligible pensioners and their dependants paid 50 cents for each benefit prescription supplied.

Total Australian Government expenditure on pharmaceutical benefits in the year 1972-73 was \$177,632,588.

The following table sets out the number of prescriptions and expenditure on the more frequently prescribed therapeutic preparations under the Pharmaceutical Benefits Scheme for 1971-72 and 1972-73. The expenditure for both years includes patient contributions, which totalled \$48,640,243 in 1972-73. Prescriptions issued free to pensioners are included, and these amounted to \$58,139,459 in 1972-73. Benefits dispensed by hospitals and those covered by special arrangements are not included, these amounted to \$32,061,691 in 1972-73.

**PRESCRIPTIONS DISPENSED UNDER THE PHARMACEUTICAL BENEFITS SCHEME(a)
1972 AND 1973**

Drug group	Year ended 30 June			
	1972		1973	
	Prescriptions	Expenditure	Prescriptions	Expenditure
	000's	\$'000	000's	\$'000
Analgesics	6,646	14,934	6,965	16,618
Anovulants (b) . . . . .	..	..	900	1,438
Antacids	2,550	3,948	2,389	3,947
Anti-cholinergics	1,213	4,147	1,199	4,257
Anti-convulsants	453	1,876	445	1,927
Anti-depressants	2,315	7,228	2,759	6,941
Anti-diabetics	740	3,408	714	3,670
Anti-histamines	4,517	8,580	4,255	8,625
Blood vessels-Drugs acting on	3,754	14,814	3,749	15,609
Broad spectrum antibiotics	6,803	20,721	6,907	21,749
Bronchial spasm preparations	2,414	8,053	2,633	9,844
Corticosteroids	774	3,308	765	2,775
Diuretics	3,737	13,138	4,113	14,858
Expectorants and cough suppressants	1,294	1,119	475	464
Eye drops	1,418	2,424	1,413	2,583
Gastro-intestinal sedatives	789	1,484	733	1,524
Genito-urinary infections-Drugs acting on	1,330	4,676	1,378	4,357
Heart-Drugs acting on	1,481	3,533	1,541	4,884
Iron preparations	1,418	1,676	1,226	1,581
Parkinsons-Drugs used for	376	1,554	376	1,761
Penicillins	5,210	14,534	5,522	16,077
Sedatives and hypnotics	5,107	5,867	4,678	5,515
Sera vaccines	681	971	897	1,324
Sulphonamides	927	1,852	1,230	3,124
Tranquillisers	2,023	7,028	3,569	9,911
Water and electrolyte replacement	1,690	3,208	1,877	3,902
Other drug groups	12,782	23,453	11,969	24,246
Total	72,442	177,534	74,676	193,508

(a) Excludes benefits dispensed by hospitals and those covered by special arrangements. (b) Anovulants were included as Pharmaceutical Benefits in February 1973.

Anti-tuberculosis campaign

Under an arrangement with the Australian Government, each State conducts a campaign against tuberculosis. The Australian Government reimburses the State for all approved capital expenditure in relation to tuberculosis, and for net maintenance expenditure to the extent that it exceeds maintenance expenditure for the year 1947-48. Thus the States carry out the physical or field work of the national campaign and the Australian Government acts in an advisory, co-ordinating, and financial capacity. The National Tuberculosis Advisory Council has been set up to advise the Minister with respect to the running of the campaign. There are twelve members, the chairman being the Director-General of the Australian Department of Health.

To reduce the spread of infection the Australian Government pays allowances to persons suffering from infectious tuberculosis, so that they may give up work and undergo treatment. These allowances have been in operation since 13 July 1950 and the current rates payable with effect from 4 April 1974 are shown in the following table.

RATES OF TUBERCULOSIS ALLOWANCE: AUSTRALIA, 1974 (\$)

Classification	Weekly allowance
Sufferer with dependant spouse	24.50
Dependant spouse of sufferer	24.50
Sufferer without spouse but with a dependant child	30.00
Sufferer without dependants	(a)29.25

(a) Reduced to \$26.00 where treatment is received free of charge in an institution.

In addition to the above rates there may be payable a mother's or guardian's allowance of up to \$6.00 a week or supplementary assistance of up to \$4.00 a week. An allowance of \$5.00 a week is payable in respect of each dependent child of a sufferer.

There is a means test on income but not on property. The allowance is reduced by half the amount by which a person's income from sources other than his allowance exceeds, in the case of a married person \$17.25 a week and in the case of a person who is without a spouse or dependent \$20.00 a week.

Australian Government expenditure. Expenditure by the Australian Government on its anti-tuberculosis campaign is set out in the following tables.

**AUSTRALIAN GOVERNMENT EXPENDITURE ON ANTI-TUBERCULOSIS
CAMPAIGN 1972-73**
(\$'000)

State or Territory	Cash benefits to persons(a)	Grants to States		Final consumption expenditure	Total(c)
		Current(b)	Capital		
New South Wales	225	3,498	50	..	3,773
Victoria	198	3,197	16	..	3,411
Queensland	157	1,896	27	..	2,080
South Australia	116	760	243	..	1,119
Western Australia	46	778	20	..	844
Tasmania	38	289	32	..	359
Northern Territory . . . . .	..	..	..	373	373
Australian Capital Territory . . . . .	..	..	..	64	64
Australia	780	10,418	388	437	12,023

(a) Allowances to sufferers. (b) Tuberculosis campaign. (c) Includes administrative costs.

**AUSTRALIAN GOVERNMENT EXPENDITURE ON ANTI-TUBERCULOSIS
CAMPAIGN**
(\$'000)

Year	Cash benefits to persons(a)	Grants to States		Final consumption expenditure	Total(c)
		Current(b)	Capital		
1968-69	921	11,460	847	..	13,511
1969-70	771	10,554	593	..	12,246
1970-71	659	10,597	469	..	12,067
1971-72	630	9,595	438	1	10,664
1972-73	780	10,418	388	437	12,023

(a) Allowances to sufferers. (b) Tuberculosis campaign. (c) Includes administrative costs.

Mass immunisation campaigns

Poliomyelitis. An anti-poliomyelitis campaign, using Salk vaccine, was commenced in 1956. This campaign continued until 1967 when, following a recommendation by the National Health and Medical Research Council, a campaign using Sabin vaccine was commenced in all States, the Northern Territory and the Australian Capital Territory. The Sabin vaccine is taken orally and a course of treatment consists of three doses. These are given at intervals of eight weeks. In the five years prior to 1972 seven new cases of poliomyelitis were notified, one of them being in 1971. During 1972 seven new cases were notified, three from Victoria and four from Western Australia. No cases were notified in 1973.

Measles. As a result of a recommendation by the National Health and Medical Research Council in May 1969, campaigns against measles commenced in early 1970 and during 1972 were in operation in all States, the Australian Capital Territory and the Northern Territory. The vaccine being used is derived from the Schwarz virus strain which is a live attenuated virus. It is administered by intramuscular injection to children in their second year of life. A course of treatment consists of one dose. A total of 179,220 doses was distributed through the Commonwealth Serum Laboratories during 1973.

Rubella. In 1969, the National Health and Medical Research Council recommended that the Cendehill rubella vaccine be used in anti-rubella (German measles) campaigns in Australia. Consequently, the Australian Government agreed to make this vaccine available to the States on the same basis as poliomyelitis and measles vaccines. By December 1970 all States had indicated that they would accept this offer. Immunisation campaigns have been conducted in all States, the Northern Territory and the Australian Capital Territory since 1971 amongst girls in the twelve to fourteen years age group. The vaccine is available from health departments and, through them, from private practitioners to other women at risk. A course of treatment with rubella vaccine, given intra-muscularly, is one dose.

Community health services and subsidies

The Australian Government, through the Department of Health, introduced two programs in 1973-74 aimed at developing and maintaining community-based health services. These programs form part of the Government's policy to promote the regionalisation and modernisation of hospitals, linked with the development of community-based health services and preventive health programs.

The *Hospitals and Health Services Commission* has the responsibility of submitting recommendations to the Minister for Health for allocation of both capital and operating funds to develop and maintain community-based general health care services, including prevention, treatment, rehabilitation and related welfare aspects of community health. The implementation of the approved programs is undertaken by the Department of Health in co-operation with State Governments. (For further details see page 459.)

Under the *Mental Health and Related Services Assistance Act* 1973, grants are made available to State Governments, local government authorities or voluntary agencies for the provision of "medical and other services or facilities for, or in relation to, the prevention or diagnosis of, or the treatment or rehabilitation of persons suffering from mental illness, mental disability, alcoholism or drug dependence".

The *Home Nursing Subsidy Scheme*, which is a continuing service at the community level provides for a Federal subsidy to assist in the expansion of home nursing activities. Organisations eligible for the subsidy are those which are non-profit making, employ registered nurses, and receive assistance from a State Government, local government body or other authority established by or under State legislation. During 1972-73 subsidies totalling \$2,502,116 were paid to 133 organisations providing home nursing services in the States. Home nursing services in the Northern Territory and the Australian Capital Territory are provided by the Australian Department of Health.

National health services organisations

The *Australian Department of Health Pathology Laboratory Service* was originally established under provisions of the *National Health Act* 1953-1973. The laboratories provide diagnostic and investigational facilities at sixteen locations, principally in country areas, throughout Australia. Laboratories are situated in Albury, Alice Springs, Bendigo, Cairns, Canberra, Darwin, Gove, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba and Townsville. Their primary role is to assist medical practitioners in the diagnosis of illness and disease and to provide facilities for investigations into public health and aspects of preventive medicine. During 1972-73, the laboratories carried out approximately 3.7 million pathology tests and investigations in respect of 1.1 million patient requests.

The *Commonwealth Serum Laboratories (CSL)* are controlled by the Commonwealth Serum Laboratories Commission, a corporate body established under the *Commonwealth Serum Laboratories Act* 1961-70. CSL is Australia's leading centre for the production and supply of biological products for human and veterinary use and one of Australia's foremost scientific institutes.

Its main functions are to produce and sell prescribed biological products used for therapeutic purposes and to ensure the supply of prescribed essential biological products in accordance with national health needs. The functions include research and development relating to the range of products in its charter and allied fields and the maintenance of potential production capacity for use in emergencies. Located at Parkville, Melbourne, CSL's research laboratories and manufacturing and storage buildings now cover most of the 27-acre site of Crown Land granted in 1918.

For several decades, CSL has been Australia's chief supplier of biological medicines, insulins, vaccines, penicillins, human blood fractions, BCG and an ever-increasing range of veterinary biological products needed by Australia's sheep, cattle, pig and poultry industries.

In addition, biological research into many kinds of human and veterinary disease is carried out, covering the fields of bacteriology, biochemistry, immunology and virology.

The Laboratories employ more than 1,000 people, including medical officers, veterinarians, bacteriologists, biochemists, physicists, engineers, accountants, laboratory assistants and skilled tradesmen.

The Australian Radiation Laboratory was originally established in 1929 as the Commonwealth Radium Laboratory, and has served from that time as the Australian centre for radiological physics and as custodian of all Australian-owned radium used for medical purposes. The laboratory's functions have expanded over the years to include the physical aspects of the use of X-rays and of other ionising radiations for medical diagnosis and treatment; the distribution of all radiopharmaceuticals used in Australia for medical purposes; the maintenance of facilities for radio-chemical investigation; the assay of radioactive substances in the Australian environment; and the maintenance of a whole-body monitor. National standards for the measurement of X-rays and of radionuclides are also maintained. The laboratory provides assistance in matters relating to protection against ionising radiations and operates a film-badge service to monitor the radiation exposure of those who work with such radiation. The laboratory also provides advice on the hazards associated with the use of microwave and laser radiations. In 1972-73 there were 13,558 deliveries of radiopharmaceuticals, comprising 25 different isotopes, procured for use in medicine and medical research. Of these 12,058 deliveries were obtained from the Australian Atomic Energy Commission. Free issues for medical diagnosis and therapy, supplied for patients throughout Australia, were 497,524, the cost of \$1,326,240 being met from the National Welfare Fund. Film badges, numbering 79,550 were processed, assessed, and reported on. The Laboratory also supplied radon to approved hospitals and private practitioners in Australia and New Zealand. In 1972-73, 23,127 millicuries of radon were issued. Administrative costs for 1972-73 were \$450,377 and \$67,375 was expended on plant and equipment.

The *National Acoustic Laboratories* undertake scientific investigations into hearing and problems associated with noise as it affects individuals. The Laboratories' functions also include research into medical applications of ultrasound and advice to the Armed Forces and Australian Government Departments and instrumentalities on hearing conservation and the reduction of noise. Audiological services are provided in major centres throughout Australia to assist children, ex-servicemen and pensioners with hearing problems. Hearing aids are supplied and serviced free of charge to persons under 21 years, and to pensioners and their dependants. Hearing aids are also provided and maintained on behalf of the Repatriation and other Australian Government Departments. During 1972-73 the number of new cases examined at the laboratories was 30,067 including 13,036 children, 4,983 repatriation cases, 728 members of the defence forces, 9,119 pensioners and 616 civil aviation referrals; 16,036 calaid hearing aids were fitted and 82,593 were on loan at the end of the year. The cost of supply and maintenance of hearing aids to persons under 21 years and pensioners was \$543,157. Administrative costs of the laboratories were \$1,548,273 and expenditure on plant and equipment \$194,032.

Australian Government health advisory organisations

The National Health and Medical Research Council advises the Australian Government and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public, and on medical research. It also advises the Australian Government and State Governments on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition. The Council advises the Australian Minister for Health on the application of expenditure from the Medical Research Endowment Fund which provides assistance to Australian Government Departments or to a State Department engaged in medical research; to universities for the purpose of medical research; to institutions and persons engaged in medical research and in the training of persons in medical research. The Australian Government makes a triennial appropriation for the Fund, that for 1973 to 1975 being \$15,400,000. The secretariat for the Council and its Committees is provided by the Australian Department of Health and is located in Canberra.

The School of Public Health and Tropical Medicine, located at the University of Sydney, provides training in public health, tropical medicine and occupational health for medical graduates and certain undergraduates, in addition to carrying out research and consultative activities in these and allied fields. During 1973, twelve diplomas were awarded in Public Health and seven in Tropical Medicine and Hygiene. A diploma in Occupational Health was offered for the first time in 1974. Costs met by the Australian Government during 1972-73 were \$820,782 for administration and \$17,472 for plant and equipment.

The Institute of Child Health is associated with the School of Public Health and Tropical Medicine at the University of Sydney and with the Royal Alexandra Hospital for Children at Camperdown. Its activities include research into medical and social problems of childhood, undergraduate and

postgraduate teaching at the University of Sydney, collaboration with other national and international organisations concerned with child health and disease, and the training of United Nations and Colombo Plan Fellows. Costs of the Institute paid by the Australian Government during 1972-73 were \$187,598 for administration and \$70,303 for plant and equipment.

The Australian Dental Standards Laboratory, formerly the Commonwealth Bureau of Dental Standards, operates under Section 9 of the *National Health Act 1953-1974*. It is a part of the Australian Department of Health and is concerned with research and testing related to dental and allied materials, instruments, equipment and processes. It assists in the preparation of standards for materials, instruments and equipment by providing technical data for standards prepared in co-operation with the Standards Association of Australia. It provides Chairmen for the Dental Standards Committees. It co-operates with the Australian Dental Association in its program of accreditation of dental products. Its functions include instruction to the dental profession and its auxiliaries on the handling of dental materials and the provision of a consultative service and testing facilities for the armed services, public instrumentalities, the dental profession and manufacturers and distributors of dental products.

Regular surveys are made of the quality of dental products and the results are made available to the profession. It participates in the preparation of international standards for dental materials. The number of products tested during 1972-73 was 488. These included assessment of deterioration of dental products under tropical conditions. Expenditure on plant and equipment for 1972-73 was \$17,800 and administrative expenses, including salaries, were \$77,690.

The National Biological Standards Laboratory is responsible for the development of standards for therapeutic goods for human and veterinary use, and for testing such products for compliance with standards thereby ensuring that they are safe, pure, potent and efficacious. Other responsibilities including the inspection of manufacturing premises and the evaluation of new and modified products make it the lynchpin of a uniform national system of control over therapeutic goods.

The Laboratory was established within the Australian Department of Health in 1958 under powers provided by the *Therapeutic Substances Act 1953-1959*. The *Therapeutic Goods Act 1966*, proclaimed on the 12 November 1970, which repealed the Therapeutic Substances Act, simplified the machinery for creating standards and extended the Australian Government's powers over medical devices, containers and packages for therapeutic goods.

The British Pharmacopoeia, the British Pharmaceutical Codex and the British Veterinary Codex are specified in the Act as primary standards. In addition, the Minister has powers to make orders setting standards for specific types of goods and general classes of goods which are imported, or the subject of interstate trade, or supplied to the Australian Government. Standards developed by the National Biological Standards Laboratory are submitted to a statutory committee, the Therapeutic Goods Standards Committee which advises the Minister on their suitability.

The Laboratory jointly with State officials and the pharmaceutical industry prepares and revises an Australian Code of Good Manufacturing Practice which is the criterion employed by inspectors for the licensing of pharmaceutical manufacturers.

The Laboratory has sections which deal with viral products, bacterial products, pharmaceutical products, antibiotics and pharmacology. Administrative costs for 1972-73 were \$934,462 and a further \$104,445 was expended on plant and equipment.

The Australian Drug Evaluation Committee operates under the *Therapeutic Goods Act 1966*, to advise the Minister for Health by: (a) making medical and scientific evaluations of such goods for therapeutic use as the Minister refers to it for evaluation; (b) making medical and scientific evaluations of other goods for therapeutic use if, in the opinion of the Committee, it is desirable that it should do so; and (c) furnishing such advice to the Minister as the Committee considers necessary relating to the importation into, and the distribution within, Australia of goods for therapeutic use that have been the subject of evaluations made by the Committee.

It has the power to co-opt and seek advice from specialist medical colleges and associations and from the medical and allied professions, drug manufacturers and other sources. The Committee's reports and resolutions resulted in amendments to the Customs (Prohibited Imports) Regulations which were implemented on 1 August 1970 to provide control on the importation of new drugs. The *Australian Registry of Adverse Reactions to Drugs* was established in August 1964 on the recommendation of the Australian Drug Evaluation Committee to provide an early warning system based on reports of reactions to drugs forwarded voluntarily by medical practitioners. To enable more detailed evaluations of reports and increase feedback activities to the medical profession, the *Adverse Drug Reaction Advisory Committee* was formed in May 1970 as a sub-committee of the Australian Drug Evaluation Committee. Three other sub-committees were also formed, the Vaccines and Sera Sub-committee, the Endocrinology Sub-committee and the Congenital

Abnormalities Sub-committee, to provide expertise and advise in their respective fields. During 1972-73, 157 applications for general marketing were received, an increase of 19 over the previous year. In addition 79 applications for clinical trials were submitted, an increase of 5 over the previous year.

The *Therapeutic Goods Advisory Committee* was established in 1974 to consider and advise the Minister for Health on any matters relating to standards applicable to goods for therapeutic use and the administration of the Therapeutic Goods Act.

The *National Therapeutic Goods Committee* comprises Federal and State representatives. Its function is to make recommendations to the Australian and State Governments on action necessary to bring about co-ordination of legislation and administrative controls on therapeutic goods. Sub-committees have been formed to consider specific matters notably Advertising, Registration and Code of Good Manufacturing Practice.

The *Hospital and Allied Services Advisory Council* was established by the 1970 Australian Health Ministers Conference to provide advice on the co-ordination of matters connected with hospital and allied services. This Council consists of representatives of each State health and hospital Department or Commission and the Australian Departments of Health and Social Security. The Repatriation Department has two representatives with observer status.

Four committees—Computer Committee, Construction Planning Committee, Research Committee and Uniform Costing Committee—were established to assist and advise the Council. A fifth committee, the Postgraduate Accreditation Committee was established following the 1973 Australian Health Ministers Conference.

The *Hospitals and Health Services Commission* was formally established on 10 April 1974 to ascertain health care needs and to make recommendations to the Australian Government concerning health care delivery systems, funds to be allocated for these systems, the education of health personnel, the accreditation of services and financial assistance to be made available to States, Territories, regions, local governments, charitable organisations and other persons. In addition the Commission is to promote and participate in planning in relation to health services. Prior to the formal establishment of the Commission under the *Hospitals and Health Services Commission Act 1973*, an Interim Committee on Hospitals and Health Services had been operating since early in 1973.

In the 1973-74 financial year the Government approved grants, under the Community Health Program, to the States totalling \$8,900,000 as recommended by the Interim Committee, and a further grant of \$1,100,000 was approved for the Royal Australian College of General Practitioners to establish a program to train increased numbers of general practitioners to undertake the role of the modern family doctor. In addition, a three-year program of planning and research for health services, totalling \$1,025,000 each year, is being implemented by the Commission. The Commission's Reports on Hospitals in Australia and a Medical Rehabilitation Program for Australia were tabled in the Australian Parliament in 1973-74.

Australian Government grants to States

Grants for mental health institutions

Since 1955 the Australian Government has been providing financial assistance to the States for the buildings and equipment of mental health institutions. The *States Grants (Mental Health Institutions) Act 1964-1970* provides for the reimbursement of one third of approved capital expenditure incurred by the States up to 30 June 1973. Details of these payments during recent years are given in the following table.

EXPENDITURE ON MENTAL HEALTH INSTITUTIONS BY THE AUSTRALIAN GOVERNMENT (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1968-69	1,925	1,200	323	433	375	399	4,655
1969-70	2,305	947	602	1,299	241	108	5,501
1970-71	1,414	798	464	909	395	219	4,199
1971-72	1,325	828	1,169	246	454	185	4,207
1972-73	873	831	967	453	219	87	3,430

NOTE: Ongoing assistance in the mental health field is being provided under the Community Mental Health Program.

Paramedical services

The *States Grants (Paramedical Services) Act 1969* provides for the Australian Government to share on a \$1 for \$1 basis with participating States the cost of approved paramedical services, such as chiropody, occupational therapy, physiotherapy and speech therapy, provided wholly or mainly for aged persons in their homes. Matching grant payments during 1972-73 amounted to \$76,964.

Australian Government grants to organisations associated with public health

In addition to providing the services mentioned on pages 449-59 the Australian Government gives financial assistance to certain organisations concerned with public health. Examples of organisations included in this category are given in the following text.

The Royal Flying Doctor Service is a non-profit organisation providing medical services in remote areas of Australia. It is distinct from, but co-ordinates with, the Aerial Medical Services operated by the Australian Department of Health from Darwin and Alice Springs in the Northern Territory. The Royal Flying Doctor Service is financed mostly from donations and government contributions. During the triennium ended 30 June 1974 the Australian Government contributed at the rate of \$485,000 per annum—\$170,000 capital assistance and \$315,000 towards operational costs. In addition, payments of \$131,596 have been made up to 30 June 1973 towards the cost of the changeover of twelve radio base stations to single side band operation. The Service made 3,886 flights during 1972-73, travelling 1,833,128 miles and transporting 5,561 patients. In the same period medical staff conducted a total of 97,737 consultations and dental treatment was given to 1,344 patients.

The Red Cross Blood Transfusion Service is conducted by the Australian Red Cross Society throughout Australia. Up to 30 June 1973 the operating costs of the service in the States have been met by the State Governments paying 60 per cent; the Australian Government, 30 per cent; and the Society, 10 per cent. In the Northern Territory and Australian Capital Territory the Australian Government has paid 90 per cent and the Society 10 per cent. Since 1 July 1973 the Australian Government contribution has been increased to 35 per cent in the States and 95 per cent in the Territories. Australian Government expenditure for each State and Territory during 1972-73 was as follows: New South Wales, \$267,389; Victoria, \$366,860; Queensland, \$211,823; South Australia, \$159,681; Western Australia, \$133,862; Tasmania, \$30,357; Northern Territory, \$60,500; and the Australian Capital Territory, \$31,100, making a total of \$1,261,572.

The National Heart Foundation of Australia is a private national organisation established to promote research in cardiovascular disease, to rehabilitate heart sufferers and to foster the dissemination of information about heart diseases. The foundation was formed in 1960 as a result of a public appeal yielding \$5 million to which the Australian Government contributed \$20,000. A further appeal in 1969 raised \$1.6 million and the Foundation now has an annual income from public donations of over \$800,000. Expenditure in 1973 came to \$1,117,000 of which almost half was devoted to supporting research into cardiovascular disease. This is the single most important function of the Foundation and from its inception to the end of 1973 it has allocated well over \$5 million for grants-in-aid towards research in university departments, hospitals and research institutes; research fellowships tenable in Australia and overseas; and overseas travel grants for study purposes.

The World Health Organisation (WHO), founded during 1948, is a specialised agency of the United Nations having as its objective the attainment by all peoples of the highest level of health. It functions as the directing and co-ordinating authority in international health work; provides consultative and technical assistance to governments and special groups; examines all aspects of health including preventive and curative medicine and research; sets international standards with respect to food, biological, pharmaceutical and similar products; and determines regulations for the control of quarantinable diseases. The organs of WHO are the World Health Assembly and the six Regional Committees which meet annually and the Executive Board which meets twice a year. Australia is assigned to the Western Pacific Region the headquarters of which is at Manila, and was represented at both the 26th World Health Assembly in Geneva in May 1973 and the Regional Committee Meeting in Wellington, New Zealand in August 1973. Australia's contribution to WHO for 1972-73 was \$A981,185.

The International Agency for Research on Cancer was established by the 18th World Health Assembly in 1965 within the framework of the World Health Organisation. The headquarters of the Agency are located in Lyon, France. The objectives and functions of the Agency are the provision for planning, promoting and developing research in all phases of the causation, treatment and prevention of cancer; collection and dissemination of information on epidemiology and cancer research throughout the world; education and training of personnel for cancer research; and the

encouragement of, and assistance at national level if necessary by the direct establishment of, research organisations. Participation in the Agency is subject to membership of the World Health Organisation and, at the determination of the Governing Council, the ability of the State to contribute effectively to the scientific and technical work of the Agency. Australia became a Participating State within a few months after the establishment of the Agency. At present there are 10 Participating States namely: Australia, Belgium, France, the Federal Republic of Germany, Italy, Japan, The Netherlands, The Union of Soviet Socialist Republics, the United Kingdom and the United States of America. Australia's contribution to the I.A.R.C. for 1972-73 was \$A147,733.

STATE GOVERNMENT ACTIVITIES

(Includes activities of the Australian Government in the Northern Territory and the Australian Capital Territory)

Public health legislation and administration

For a comprehensive account of the administration of health services in each State, the Northern Territory and the Australian Capital Territory, see the annual reports of the respective Departments of Health. For details of legislation and administrative changes in previous years see earlier issues of the Year Book. The following paragraphs refer briefly to recent developments.

In *New South Wales*, as part of the planning for complete regionalisation of hospital services, thirteen Regional Directors of Health have been or will be appointed to establish the system of regional health administration throughout the State. These Directors need substantial administrative resources to implement the system fully and at this stage three regions only are operating fully—Western Metropolitan, Hunter and Illawarra. There is a reasonable expectation that all regions will be fully operating by July 1974.

The Health Commission Act, 1972, was assented to on 23 November 1972 to constitute the Health Commission of New South Wales and to define its powers, authorities, duties and functions; to dissolve the Hospitals Commission of New South Wales and the Board of Health and to abolish the Department of Health; to amend the Public Health Act, 1902, the Public Hospitals Act, 1929, and certain other Acts. All the provisions of this Act had come into force by 1 August 1973.

The Clean Air (Amendment) Act, 1972, was introduced and empowers the Minister to prohibit, by order, burning in open fires of any matter except for certain purposes such as recreational, domestic and agricultural purposes. Also, the Clean Air (Further Amendment) Act, 1972, was introduced and prohibits the sale or use of motor vehicles that emit excessive air impurities, to enable regulations to be made requiring that motor vehicles be fitted with prescribed anti-pollution devices. Both these Acts amend the Clean Air Act of 1961.

The Nurses Registration Act, 1973, is an Act to enable annual practising fees to be made payable by different registered nurses and enrolled nursing aides at different times. This Act amends the Nurses Registration Act, 1953.

The Venereal Diseases (Amendment) Act, 1973, is an Act to make further provision for restricting the spread of venereal disease. This Act will amend the Venereal Diseases Act, 1918, and was assented to on 10 April 1973.

In *Victoria* the *Health (Fluoridation) Act 1973* was introduced enabling water supply authorities in Victoria to add fluoride to public water supplies so as to bring the fluoride content to a desirable level from the dental health point of view.

The *Hospitals and Charities Act 1958* was amended to overcome certain irregularities in legislation relating to a number of long established philanthropic societies. An additional amendment requires any institution or benevolent society to obtain prior approval of the Minister to any agreement, contract or arrangement made by the hospital society or institution regarding construction of buildings or extension when the finance is to come from Government funds whether State or Federal.

The *Poisons (Fees) Act 1973* increased fees for the issue of various licences in respect of the manufacture, sale by wholesale and sale by retail of poisons and deleterious substances.

The *Melbourne Family Care Organization Act 1973* authorized the Melbourne Family Care Organization to sell certain land granted to trustees of the Melbourne Orphan Asylum by the Crown on 12 January 1872.

The *Health (Special Accommodation Houses) Act 1973* amended the *Health Act 1958* by the introduction of a new division providing for the registration of special types of boarding houses in which are lodged or to be lodged persons aged 60 years or over.

A *Dental Technicians Act 1972* has been introduced to control the training, registration and practice of dental technicians.

A general amendment of the Health Act was introduced to provide for better control of private hospitals but incorporating a number of necessary amendments relating to the control of dangerous substances, the supervision of tents and amusement structures used by the public; the supervision of food premises and the adoption from time to time of new issues of the British Pharmacopoeia.

An amendment of the *Medical Practitioners Act 1970* provides for a compulsory twelve month period as an intern in a hospital for all persons registered by the Medical Board of Victoria after 1 October 1973.

A Joint Select Committee of the Parliament was established by special Act to inquire into and report upon the activities of Osteopaths, Chiropractors and Naturopaths and to make recommendations for future forms of control of these practices.

In *Queensland, The Medical Act Amendment Act of 1973* was passed to enable medical practitioners who hold satisfactory qualifications gained in Canada to become eligible for registration in Queensland without further examination.

The Medical Act and Other Acts (Administration) Act Amendment Act of 1973 allowed the implementation of more efficient methods for collection of fees and accounting procedures in the composite office of the Registrar, Medical and Other Boards.

The Dental Act Amendment Act of 1973 clarified the varying functions of operative dental auxiliaries and the by-law making power in relation thereto, permitted trainee operative dental auxiliaries to perform duties prescribed under certain conditions and allowed the recognition of high honorary qualifications in dentistry.

The Health Act Amendment Act of 1973 amended existing legislation dealing with health hazards which may arise from the use of paint and the provisions which cover offences arising from the unauthorised possession of drugs.

In *South Australia* the Physiotherapists Act Amendment Bill amended the Physiotherapists Act 1945-1972 to enable the Board to grant licences to permit the practice of physiotherapy.

In *Western Australia* the *Dentists Act Amendment Act, 1972* was assented to on 6 December 1972, making provision for the training and employment of Dental Therapists as well as establishing a committee to be known as the Dental Charges Committee with power to investigate fees or remuneration payable to a dentist for dental service.

The Noise Abatement Act, 1972 was also assented to on 6 December 1972, which allows for the appointment of a Noise and Vibration Council which, with the assistance of an Advisory Committee, may make regulations or model by-laws to initiate the means of preventing, abating or mitigating the nuisance arising from noise and vibration.

The Health Act Amendment Act, 1973 was assented to on 28 December 1973, giving the Governor power to make regulations for the control of patients confined in or released from a leprosarium and of persons wishing to visit such establishments. The amendment also provides for the establishment of a school dental service to provide dental care and treatment of pre-school and school children. The Commissioner of Public Health is also provided with the power to prohibit the sale, distribution or possession of any article or thing offered for sale as a child's toy which he considers unsafe or a danger to the health or life of any person.

In the *Northern Territory* the *Emergency Medical Operations Ordinance 1973* allows (a) a medical practitioner to perform an operation, which includes the administration of an anaesthetic or a blood transfusion, without having the consent of the patient or the next-of-kin where the patient is in danger of dying or suffering permanent disability if the operation had to be delayed till the consent could be sought, (b) a medical practitioner to perform an operation on an infant if the parent or guardian fails to give consent and if in the opinion of that medical practitioner and at least one other medical practitioner that an operation is deemed to be necessary.

The Dentists Registration Ordinance Amendment 1973 makes provision for the registration and employment of dental therapists.

The Midwives Regulations under the Nurses Registration Ordinance allows for the setting up of schools to provide for the training of midwives.

Supervision and care of infant life

Because the health of mothers and infants depends largely on pre-natal care as well as after-care, government, local government and private organisations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by infant welfare centres, baby clinics, crèches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. (Information about infant mortality will be found in Chapter 8, Vital Statistics.) Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons.

Under the provisions of the *Social Services Act 1947-1973* maternity allowances provide financial assistance towards the expenses associated with the birth of children. Information about maternity allowances is given in Chapter 13, Social Security and Welfare Services.

Nursing activities

Several State Governments maintain centres which provide advice and treatment for mothers and children and, in addition, subsidies are granted to various associations engaged in welfare work.

Infant welfare centres. The following table gives particulars of the activities of infant welfare centres for the year 1973. The figures relate to all centres, whether permanently staffed or on a temporary or part-time basis. Centres may be located at accommodation specially provided for this purpose, or may be conducted in temporary premises in halls, schools, etc.

INFANT WELFARE CENTRES, 1973

	N.S.W.	Vic.	Qld(a)	S.A.(a)	W.A.	Tas.	N.T.(a)	A.C.T.	Aust.
Number of centres(b)	444	745	292	301	93	114	22	51	2,062
Attendances at centres—									
Pre-natal	21,847	n.a.	2,154	9,950	2,385	2,638	n.a.	..	n.a.
Post-natal—Number of children	1,213,820	1,505,761	560,405	296,182	254,545	146,399	36,169	81,808	4,095,089
Nurses' home-visits(c)	31,602	141,133	4,124	35,898	32,598	72,905	8,648	18,166	345,074
Nurses' hospital-visits(d)	65,229	19,698	31,535	n.a.	18,013	n.a.	2,091	(e)208	n.a.

(a) Year ended 30 June 1973. (b) At end of year. (c) Pre- and post-natal. (d) Post-natal. (e) Visits to hospitals, not to individual mothers.

Mobile units are used to service centres in some States. In 1973, the numbers of units and centres served, included in the above table, were as follows: Victoria, 4 and 14; Queensland, 5 and 42; South Australia, 3 and 34; Western Australia, 4 and 32. The number of centres for Tasmania includes 13 areas visited by sisters in cars. The number of centres for the Australian Capital Territory includes 2 areas covered by home visits.

Since 1930, the number of attendances at the infant welfare centres has increased more than four-fold. The numbers of attendances at ten year intervals since 1930 were as follows: 1930, 919,893; 1940, 2,035,299; 1950, 3,049,375; 1960, 3,482,383; and 1970, 4,010,906.

Bush Nursing Associations. Treatment for mothers and children is also provided by the Bush Nursing Associations. The numbers of centres maintained by the Associations in 1973 were: New South Wales, 11; Victoria, 58; Queensland, 5; South Australia, 39; and Western Australia, 12. In Tasmania, all of the district nursing centres have been taken over by the nearest public hospital and are no longer distinct entities.

Medical and dental inspection of school children

For details of the administration of school health services in each State, the Northern Territory, and the Australian Capital Territory, see Year Book No. 55, pages 458-61. Further information about the operation of the school medical and dental services is given in State Year Books. The following paragraphs summarise features common to most States.

Medical and dental inspection of school children is carried out in all States under the control of State health departments, and in the Northern Territory and the Australian Capital Territory under the control of the Australian Department of Health. The school health services are available to both government and non-government schools in metropolitan areas and larger country towns. In some States, special arrangements are made for children attending schools in more remote country areas.

The aim of the school medical services is to medically examine all children at least once during their school careers, usually on entry into primary school. Review examinations or, in some States, tests of vision and hearing by school nurses, are conducted in upper-primary and lower-secondary grades. Parents or guardians are notified of any departure from normal health and advised to seek further attention if necessary.

The aim of the school dental services is to examine and give regular dental treatment to children. Usually, acceptance for treatment is limited to children in primary schools. Some school children are treated at hospital dental clinics. Aboriginal missions and orphanages are also visited by school

dentists. The consent of a parent or guardian is necessary before treatment can be given. In some States, priority is given to children who live in areas beyond the easy reach of other dental services. Treatment in remote areas is facilitated by the use of travelling dental clinics.

The following table summarises school health services in the States and Territories. Uniform concepts and definitions have not been developed, so Australian totals have not been shown.

SCHOOL HEALTH SERVICES, 1973

	N.S.W.	Vic.	Qld(a)	S.A.	W.A.	Tas.	N.T.(a)	A.C.T.
School medical services—								
Staff(b)—								
Medical officers	70	45	6	15	8	15	6	3
School nurses	100	54	35	17	26	33	14	7
Medical examinations—								
Children examined	323,856	222,237	137,637	(c)80,489	34,404	(c)25,978	(d)19,174	21,787
Found with defects	26,372	15,474	(e)9,840	(c)11,687	7,666	4,879	2,697	1,796
School dental services—								
Number of dental clinics—								
Stationary	14	3	..	27	28	32	n.a.	44
Mobile	(f)19	11	(g)4		3	24	n.a.	1
Staff(b)—								
Dental officers	31	28	25	28	26	20	n.a.	17
Dental assistants, therapists and nurses	49	34	3	56	43	53	n.a.	51
Dental examinations—								
Children examined	89,916	29,276	(h)31,239	34,200	63,251	51,832	20,985	22,203
Number treated	23,208	24,783	(h)9,193	26,958	n.a.	n.a.	n.a.	22,002

(a) Year ended 30 June 1973. (b) Full-time and part-time. (c) Excludes some children tested for hearing and vision by school sisters. (d) Includes pre-school children. (e) Number of defects found. (f) There is also a dental team with the Royal Flying Doctor Service (based at Broken Hill). (g) In addition, portable dental equipment is possessed by 18 dental officers who function from departmental vehicles. (h) Only children who reside in more remote areas.

HOSPITALS, NOTIFIABLE DISEASES AND CREMATIONS

This section provides statistical information on hospitals and nursing homes; notifiable diseases; a survey of chronic illnesses and impairments; and cremations. The institutions referred to under this heading are classified into the following groups: public hospitals and nursing homes; private hospitals and nursing homes; repatriation hospitals; hansenide hospitals; and mental health institutions. Statistics of quarantine stations, and of hospitals maintained by the Armed Services, are not included.

Public hospitals and nursing homes

The statistics shown for public hospitals and nursing homes refer to the following institutions: *New South Wales*—all in-patient institutions under the authority of the New South Wales Hospitals Commission, and which receive a government subsidy during the year, and the six State hospitals and nursing homes under the control of the Department of Public Health; *Victoria*—all hospitals including hospitals for the aged subsidised by the Victorian Hospitals and Charities Commission, one tuberculosis sanatorium, and the Peter MacCallum Clinic, but not the exotic diseases block at the Fairfield Hospital; *Queensland*—all hospitals and nursing homes open to all sectors of the public and which are controlled or operated by the State Government or by District Hospital Boards or those which are approved by the Australian Health Department as public and have all of their beds approved as public; *South Australia*—all hospitals controlled and maintained by, or which receive a regular annual grant or subsidy for maintenance purposes from, the State, local government or semi-government authorities; *Western Australia*—all departmental and subsidised board hospitals, including Perth Dental Hospital, but excluding the Australian Inland Mission hospitals; *Tasmania*—all public hospitals designated as such by the Director-General of Health Services, together with three homes for the aged, and one chest hospital; *Northern Territory*—departmental hospitals at Darwin, Alice Springs, Tennant Creek, and Katherine; *Australian Capital Territory*—the Canberra Hospital, the Woden Valley Hospital and the Queen Elizabeth II Coronation Home for post-natal care.

A number of institutions classified by the Australian Department of Health as 'public' hospitals or nursing homes are not included in the statistics of public hospitals and nursing homes: there were 94 such institutions at June 1972 with an approved bed capacity of 4,394.

Number, staff and accommodation

The number of public hospitals and nursing homes, the number of staff and accommodation provided are shown in the following table.

**PUBLIC HOSPITALS AND NURSING HOMES: NUMBER, STAFF AND ACCOMMODATION
JUNE 1972**

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Number of hospitals and nursing homes	274	158	146	69	100	24	5	2	778
Medical staff—									
Salaried	1,545	1,678	658	446	392	183	69	39	5,010
Other(a)	6,059	2,546	176	527	408	192	24	251	10,183
Nursing staff(b)	24,020	18,064	8,763	6,351	6,171	2,219	688	832	67,108
Accommodation—									
Number of beds and cots	29,202	18,206	12,956	5,470	7,280	3,002	742	699	77,557

(a) Includes honorary and visiting medical officers who may hold appointments at more than one hospital. (b) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides, and nursing aide trainees.

In-patients treated

The following table gives particulars of in-patients treated. The figures shown refer to cases, that is to say, a person who is admitted to hospital or nursing home twice during a year is counted twice. Newborn babies are excluded unless they remain in hospital or nursing home after their mothers' discharge.

PUBLIC HOSPITALS AND NURSING HOMES: IN-PATIENTS TREATED, 1971-72

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
In-patients at beginning of year	22,524	14,242	8,558	3,906	5,367	2,220	572	604	57,993
Admissions and re-admissions during year	710,492	403,132	279,983	147,058	168,436	50,468	18,538	25,200	1,803,307
Total in-patients (cases) treated	733,016	417,374	288,541	150,964	173,803	52,688	19,110	25,804	1,861,300
Discharges and deaths	710,338	402,880	280,234	146,988	168,424	50,468	18,578	25,182	1,803,092
In-patients at end of year	22,678	14,494	8,307	3,976	5,379	2,220	532	622	58,208
Average daily number resident	21,894	13,893	8,100	3,899	5,338	2,156	546	590	56,416
Number of out-patients treated	2,242,844	1,028,469	997,699	n.a.	464,016	145,687	n.a.	42,253	n.a.
Number of out-patient attendances	5,366,880	2,740,402	2,441,680	536,446	1,112,704	453,809	217,248	59,052	12,928,221

Revenue and expenditure

Details of revenue and expenditure for the year 1971-72 are shown in the next table. 'Government aid' includes municipal aid which was shown as a separate revenue item for some States in previous Year Books. Australian Government pharmaceutical benefits and tuberculosis allowances paid direct to the institutions have also been included as 'government aid'.

Australian Government hospital and nursing home benefits paid direct to public hospitals and nursing homes (in either full or part payment of fees incurred by pensioners and other uninsured patients) are treated on the same basis as Government benefits used to reimburse insured patients, and included in the amounts shown for 'fees'. Details of Australian Government expenditure on each of the different categories of hospital benefits are shown on page 434.

For some States, expenditure on capital items out of hospitals' own funds are not included in the figures shown. Comparison between the States should therefore be made with caution.

PUBLIC HOSPITALS AND NURSING HOMES: REVENUE AND EXPENDITURE, 1971-72
(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Revenue—									
Government aid	161,570	110,071	58,891	45,091	51,763	17,810	15,512	5,313	466,021
Public subscriptions, legacies, etc.	172	7,511	412	465	2				8,562
Fees	117,283	72,460	16,251	22,628	24,629	7,377	960	3,255	264,843
Other	3,619	(a)3,589	(b)9,832	1,751	3,172	68			22,031
Total revenue	282,644	193,631	85,386	69,935	79,566	25,256	16,472	8,568	761,458
Expenditure—									
Salaries and wages	189,031	128,792	52,019	36,308	47,114	15,142	5,576	6,052	480,034
Upkeep and repair of buildings and grounds	6,993	3,857	23,353	2,122	7,072	424	528	321	191,347
All other maintenance	62,506	40,739		14,196	19,767	5,449	2,206	1,814	
Total maintenance	258,531	173,387	75,372	52,626	73,953	21,015	8,310	8,187	671,381
Capital	24,610	19,137	10,105	16,073	5,231	4,544	8,162	1,019	88,881
Total expenditure	283,141	192,524	85,477	68,699	79,183	25,559	16,472	9,206	760,261

(a) Includes income from investments, income from sundry sources, special purposes medical, non-operating income.
(b) Includes loans of \$9.2 million from financial institutions.

Summary for Australia

A summary of statistics relating to public hospitals and nursing homes in Australia is given in the following table.

PUBLIC HOSPITALS AND NURSING HOMES: AUSTRALIA

	1967-68	1968-69	1969-70	1970-71	1971-72
Hospitals and nursing homes	762	768	772	777	778
Medical staff—					
Salaried		4,324	4,706	4,526	4,815
Other(a)		9,265	9,579	9,723	9,865
Nursing staff(b)		52,236	55,219	59,707	62,334
Beds and cots		74,768	75,242	75,415	76,240
Admissions		1,500,662	1,572,225	1,617,797	1,694,661
Total in-patients (cases) treated		1,554,331	1,626,998	1,673,807	1,752,573
Average daily number resident		53,467	54,600	54,329	55,156
Out-patients (cases)(c)		4,365,000	4,656,000	4,901,000	5,058,000
Revenue	\$'000	413,183	464,117	519,542	618,517
Expenditure	\$'000	411,869	460,393	518,536	620,548

(a) Includes honorary and visiting medical officers, who may hold appointments at more than one hospital.
(b) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides, and nursing aide trainees.
(c) Estimated

Private hospitals and nursing homes

The figures shown in the following table refer to those private hospitals and nursing homes which have been approved for the payment of Government hospital benefits under the *National Health Act* 1953-1974. A small number of institutions classified as 'private' by the Department of Social Security are included in public hospital statistics, and these have been omitted from the following two tables. Statistical information about patients, staff and finance of these institutions is not available on a uniform Australia-wide basis.

PRIVATE HOSPITALS AND NURSING HOMES

State	30 June—				
	1968	1969	1970	1971	1972
NUMBER OF PRIVATE HOSPITALS AND NURSING HOMES					
New South Wales	541	536	(a)546	(a)569	(a)587
Victoria	310	311	313	317	319
Queensland	155	156	163	167	177
South Australia(b)	185	187	184	184	180
Western Australia	102	104	105	107	116
Tasmania	43	44	47	49	49
Australia	1,336	1,338	1,358	1,393	1,428

NUMBER OF BEDS FOR PATIENTS

New South Wales	17,016	18,377	(a)19,665	(a)22,235	(a)25,085
Victoria	7,267	7,385	7,790	8,187	8,698
Queensland	4,908	5,117	5,949	6,434	7,163
South Australia(b)	4,542	4,778	4,908	5,146	5,519
Western Australia	3,333	3,484	3,643	3,923	4,679
Tasmania	1,084	1,160	1,294	1,443	1,486
Australia	38,150	40,301	43,249	47,368	52,630

(a) Includes three institutions in the Australian Capital Territory. There were no institutions of this nature in the A.C.T. prior to 1970. (b) Includes one institution in the Northern Territory.

Repatriation hospitals

The medical care of eligible ex-servicemen and dependants of deceased ex-servicemen is a major function of the Department of Repatriation and Compensation, which provides a comprehensive service.

In-patient treatment is provided at the six Repatriation General Hospitals (one in each State) and at seven auxiliary hospitals and sanatoria. In-patient treatment may also be provided in country hospitals at the Department's expense in certain circumstances. Mental patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department in mental hospitals administered by the State authorities.

Details of patients, staff and expenditure on Repatriation institutions and other medical services are given in Chapter 5, Repatriation.

Hansenide hospitals

There are four isolation hospitals in Australia for the care and treatment of persons suffering from Hansen's disease (leprosy). The numbers of isolation patients at these hospitals at 31 December 1973 were: Little Bay (New South Wales), 2; Fairfield (Victoria), 7; Palm Island (North Queensland) (Patients formerly located at Fontome Island), 5; and Derby (Western Australia), 77. At 31 December 1973 there were 850 leprosy patients in the Northern Territory of whom approximately 50 were in-patients for the care and repair of deformity and not from the point of view of isolation. With the exception of the Institute of Tropical Medicine at Little Bay, nursing services are provided mostly by sisters of religious orders under supervision of Government medical officers.

A special ward for the isolation and treatment of leprosy patients is provided at the Princess Alexandra Hospital (Queensland). The number of isolation patients resident at 31 December 1973 was 5.

Mental health institutions

The presentation of meaningful statistics of mental health services has become increasingly difficult because of changes in recent years in the institutions and services for the care of mental patients. The emphasis has shifted from institutions for care of patients certified insane to a range of mental health services provided for in-patients and out-patients at psychiatric hospitals, admission and reception centres, day hospitals, out-patient clinics, training centres, homes for the mentally retarded and geriatric patients, psychiatric units in general hospitals, and the like.

In-patient institutions

The following table shows the number of major in-patient institutions in each State in 1972, the accommodation they provide for patients, and staff. In-patient care for voluntary patients is also provided at many general public and a number of private hospitals. There are also psychiatric units attached to gaols, juvenile corrective centres and similar institutions. Only the following institutions, under the control of the State mental health authorities, are included in this table: *New South Wales*—the sixteen State psychiatric centres (a psychiatric hospital and associated admission centre being regarded as one psychiatric centre) and the four authorised private psychiatric hospitals (several other institutions provide in-patient care for voluntary patients only, but are excluded from the scope of the statistics); *Victoria*—the eight psychiatric hospitals, eleven mental hospitals, seven informal hospitals, one alcohol and drug dependency and rehabilitation centre, and nine intellectual deficiency training centres; *Queensland*—six psychiatric hospitals, three training centres, and one rehabilitation clinic; *South Australia*—six in-patient institutions; *Western Australia*—the three approved mental hospitals and two training centres; and *Tasmania*—the Royal Derwent hospital.

MENTAL HEALTH: IN-PATIENT INSTITUTIONS, ACCOMMODATION AND STAFF
AT 30 JUNE 1972

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
In-patient institutions	20	(a)36	10	6	5	1	78
Beds and cots for patients	9,723	(b)8,712	3,760	2,144	1,494	1,028	26,861
Staff—Medical	194	(a)149	(c)27	48	25	11	454
Nursing(d)	4,137	(a)3,209	1,419	858	827	377	10,827

(a) At 30 November 1972. (b) The number of beds and cots occupied on 30 November 1972. (c) Full-time staff and full-time equivalent of part-time staff. (d) Includes attendants.

There are no separate in-patient institutions for mental patients in the Northern Territory or the Australian Capital Territory. With the appointment of a Director of Psychiatric Services the organisation of a psychiatric service was begun in the Australian Capital Territory in 1967-68.

Patients

The following table sets out statistics of in-patients under the care of the respective State mental health services.

IN-PATIENTS AT MENTAL HEALTH INSTITUTIONS, 1971-72

	N.S.W.	Vic. (a)(b)	Qld	S.A.	W.A.	Tas.	Aust.
In-patients at beginning of year—							
Males	5,666	5,418	2,436	1,198	1,496	467	16,681
Females	4,273	4,751	1,465	995	1,007	473	12,964
Persons	9,939	10,169	3,901	2,193	2,503	940	29,645
Admissions and re-admissions during year—							
Males	10,065	6,482	2,284	1,809	1,737	589	22,966
Females	8,573	5,946	1,100	1,793	1,294	383	19,089
Persons	18,638	12,428	3,384	3,602	3,031	972	42,055
Total in-patients (cases) treated—							
Males	15,731	11,900	4,720	3,007	3,233	1,056	39,647
Females	12,846	10,697	2,565	2,788	2,301	856	32,053
Persons	28,577	22,597	7,285	5,795	5,534	1,912	71,700
Discharges, including deaths—							
Males	9,902	6,148	2,288	1,779	1,550	566	22,233
Females	8,803	5,768	1,130	1,707	1,107	371	18,886
Persons	18,705	11,916	3,418	3,486	2,657	937	41,119
In-patients at end of year—							
Males	5,466	5,369	2,295	1,142	1,611	464	16,347
Females	3,811	4,589	1,351	1,017	1,169	460	12,397
Persons	9,277	9,958	3,646	2,159	2,780	924	28,744

(a) Twelve months ended 30 November 1972. (b) Includes transfers from one institution to another. (c) At 1 January 1972.

State government expenditure on mental health services

The following figures show particulars of expenditure by States for the year 1971-72. Maintenance expenditure represents expenditure on wages and salaries, upkeep and repair of buildings and grounds, and other maintenance. The figure for New South Wales relates to the 16 State psychiatric centres and the Master in Protective Jurisdiction of the Supreme Court. Capital expenditure is expenditure as approved under the *State Grants (Mental Health Institutions) Act 1964* only, and excludes the Australian Government contributions paid under this Act—(see page 459).

MENTAL HEALTH: EXPENDITURE, 1971-72
(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	All States
Maintenance	38,011	34,862	12,214	8,043	9,412	3,230	105,772
Capital	2,650	1,656	2,338	492	908	370	8,414

Notifiable diseases

Methods of prevention and control

Provision exists in the Health Acts of all States for the compulsory notification of certain infectious and other diseases and for the application of preventive measures. When any such disease occurs the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts and on the appearance of certain diseases. Regulations provide for the disinfection and cleansing of premises and for the disinfection or destruction of bedding, clothing or other articles which have been exposed to infection. Regulations also provide that persons suspected to be suffering from, or to be carriers of, infectious disease must submit to clinical and laboratory examination. Persons suffering from certain diseases, for example, smallpox, are detained in isolation.

Notifiable diseases and cases notified, 1973

The following table shows, by State and Territory, the number of cases notified in 1973 for those diseases notifiable in all States and Territories. In May 1965 the National Health and Medical Research Council at its Fifty-ninth Session proposed a basic list of diseases to be notifiable in each State and Territory, and this table is based upon that proposal. The table does not include all diseases which are notifiable in a State or Territory. Factors such as the following affect both the completeness of the figures and the comparability from State to State and from year to year: availability of medical and diagnostic services; varying degrees of attention to notification of diseases; and enforcement and follow-up of notifications by Health Departments.

NOTIFIABLE DISEASES(a): NUMBER OF CASES NOTIFIED, 1973

Disease	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Brucellosis	45	17	7	4	1	..	..	..	74
Diphtheria	13	2	61	1	5	..	..	..	82
Gonorrhoea	3,356	1,931	2,192	1,472	1,662	165	524	35	11,337
Hepatitis, Infective	1,460	993	(b)793	319	473	40	236	44	4,358
Hydatid	6	4	..	4	1	9	..	..	24
Hansen's disease (leprosy) . . . . .	..	7	4	1	5	..	14	..	31
Leptospirosis	9	6	29	3	3	..	..	..	50
Malaria	29	44	59	15	9	2	27	18	203
Ornithosis	2	2	2	..	..	..	..	..	6
Syphilis	363	143	362	178	296	1	85	2	1,430
Tetanus	6	4	6	..	..	1	..	..	17
Tuberculosis	591	369	(c)226	109	136	48	59	23	1,561
Typhoid Fever	6	8	2	2	..	..	..	..	18
Typhus (all forms) . . . . .	..	..	4	..	..	..	..	..	4

(a) No cases of cholera, plague, poliomyelitis, smallpox or yellow fever were notified. (b) Includes hepatitis, serum (homologous). (c) Includes erythema nodosum and pleural effusion.

New infectious hepatitis cases notified. The following table shows the number of cases of infectious hepatitis notified during recent years.

INFECTIOUS HEPATITIS: CASES NOTIFIED

<i>State or Territory</i>	<i>1969</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>	<i>1973</i>
New South Wales	2,820	2,851	2,615	2,211	1,457
Victoria	2,364	2,401	1,895	1,226	993
Queensland(a)	886	1,000	1,258	1,379	793
South Australia	615	485	504	630	319
Western Australia	146	166	554	389	473
Tasmania	493	318	287	93	40
Northern Territory	74	229	296	133	236
Australian Capital Territory	52	121	100	57	44
Australia	7,450	7,571	7,509	6,118	4,355

(a) Includes hepatitis, serum (homologous).

New tuberculosis cases notified. The following table gives particulars of the number of new cases of tuberculosis notified in Australia for 1973.

TUBERCULOSIS: NEW CASES NOTIFIED(a), 1973

<i>State or Territory</i>	<i>Age group (years)</i>					<i>Total</i>
	<i>0-14</i>	<i>15-34</i>	<i>35-54</i>	<i>55 and over</i>	<i>Not stated</i>	
New South Wales	40	110	210	230	1	591
Victoria	42	57	135	135	..	369
Queensland(b)	5	17	84	119	1	226
South Australia	8	18	50	33	..	109
Western Australia	16	29	36	55	..	136
Tasmania	3	10	19	16	..	48
Northern Territory	4	17	24	14	..	59
Australian Capital Territory	1	6	9	7	..	23
Australia	119	264	567	609	2	1,561

(a) Figures supplied by the Director of Tuberculosis in each State and the Australian Department of Health. (b) Includes erythema nodosum and pleural effusion.

Chronic illnesses, injuries, and impairments

As part of the quarterly population survey (see Chapter 20, Employment and Unemployment) a survey was conducted in May 1968, in all States except Victoria, in order to obtain estimates of the incidence of chronic illnesses, injuries and impairments in the population, the nature of these conditions and their cause (e.g. whether they were congenital or due to war, accident, etc.). In addition, the survey obtained information on the effect of these conditions on the activities of those who suffered from them.

Estimates derived from the survey were published in a mimeographed bulletin *Chronic Illnesses Injuries and Impairments, May 1968* (Ref. No. 17.3). A summary of the principal results is given in the Appendix to Year Book No. 56.

Disposal of dead by cremation

The first crematorium in Australia was opened in South Australia in 1903. At 31 December 1973 there were thirty-two crematoria in Australia, situated as follows: New South Wales, 15; Victoria, 4; Queensland, 6; South Australia, 2; Western Australia, 2; Tasmania, 2; Australian Capital Territory, 1. There is no crematorium in the Northern Territory. The following table shows the number of cremations and total deaths in each State and Territory for each of the years 1969 to 1973.

CREMATIONS AND TOTAL DEATHS(a)

State or Territory	1969		1970		1971		1972		1973	
	Crema- tions	Total deaths	Crema- tions	Total deaths	Crema- tions	Total deaths	Crema- tions	Total deaths	Crema- tions	Total deaths
New South Wales	18,564	40,655	20,087	43,601	19,966	41,691	20,117	41,652	19,991	41,122
Victoria	10,617	28,976	11,265	30,335	11,134	30,598	11,226	29,856	11,677	30,696
Queensland	5,733	15,786	6,303	17,055	6,203	16,339	6,269	16,598	6,697	16,732
South Australia	2,464	9,337	2,884	10,138	2,917	9,686	3,182	9,764	3,402	9,835
Western Australia	2,590	7,350	2,826	7,543	2,996	7,806	3,013	7,441	3,387	7,845
Tasmania	1,066	3,309	1,039	3,174	1,157	3,295	1,135	3,227	1,205	3,347
Northern Territory		485		608		637		553		580
Australian Capital Territory	309	588	338	594	341	598	374	669	365	665
Australia	41,343	106,486	44,742	113,048	44,714	110,650	45,316	109,760	46,724	110,822

(a) Cremations are not necessarily carried out in the State or Territory where the death was registered.

CHAPTER 15

LAW, ORDER, AND PUBLIC SAFETY

This chapter provides summary information about criminal and civil court proceedings (including bankruptcy); selected crime reported or becoming known to the police; police strengths; prisons; expenditure on law and order; fire brigades; and patents, trademarks and copyright. The main sources of further information for individual States are the State Year Books and Annual Statistical bulletins, and the annual reports of the relevant justice authorities. *See also* Year Book No. 55, 1969, page 456, for short descriptions of the National Safety Council of Australia, lifesaving organisations, the Royal Humane Society and the Order of St John.

The statistics in this chapter are influenced by a number of factors which affect comparability from State to State and from year to year, such as differences in the jurisdiction of courts; changes in the law in particular States and differences in the laws between States; differences in the methods of compiling the statistics (e.g. in respect of persons convicted for more than one offence); the prevailing attitude to laws such as those connected with liquor, vagrancy, gaming, and traffic offences; and the strength and distribution of the police forces.

Details of the development and structure of the State, Territory, and Commonwealth legal systems are given in Year Book No. 55, pages 565-7 and Year Book No. 56, page 441. The only notable changes since then occurred in South Australia and New South Wales. In South Australia the Local Courts Act Amendment Act, 1969 came into operation on 20 August 1970. It provides for the establishment of District Criminal Courts. Provision has been made for the division of the State into districts and for the appointment by the Senior Judge, of judges known as Recorders, to courts in each of these Districts. Under the Act the District Court has the jurisdiction and powers of the Supreme Court in respect of indictable offences except for capital offences and for felonies and misdemeanors where the maximum punishment is imprisonment exceeding ten years.

In New South Wales the Supreme Court Act, 1970 came into operation on 1 July 1972. The Act provides for the concurrent administration of law and equity in the Supreme Court which will have the effect of bringing the New South Wales civil procedure in the Supreme Court in line with the other Australian States which have had concurrent administration from as early as 1876. Equitable reliefs and defences which could formerly only be pleaded in the Supreme Court exercising jurisdiction in equity can now be heard together with common law claims and defences in the one jurisdiction. The general scope of the Act will enable a suitor to obtain by one proceeding, the same ultimate result as he would previously have obtained either by having selected the right jurisdiction or after having been to each jurisdiction in succession. The Law Reform (Law and Equity) Act, 1972, which also commenced on 1 July 1972, provides that if any conflict or variance arises between the rules of equity and common law with reference to the same matter, the rules of equity will prevail. This principle extends, where applicable, to the inferior courts.

Lower (magistrates') courts

Particulars of the powers of magistrates, and of special provisions for dealing with juvenile offenders in special courts in the various States and Territories are given in Year Book No. 55, pages 567 to 571. The statistics in the following tables are influenced by the factors listed at the beginning of this chapter and, in particular by differences in the jurisdiction of lower courts in the various States.

Criminal proceedings

The number of charges heard at magistrates' courts in each State and Territory in recent years are given in the following table. The statistics relate to individual offences for which persons were charged, except for Queensland where proceedings against a person for a number of offences at the one hearing are counted as one charge.

MAGISTRATES' COURTS(a): CHARGES HEARD(b)

State or Territory	1968	1969	1970	1971	1972
New South Wales	337,540	361,377	390,233	427,560	n.a.
Victoria	326,445	341,284	339,019	339,527	370,701
Queensland(c)(d)	100,046	107,375	110,803	110,883	114,063
South Australia(c)	117,081	118,877	125,867	123,303	142,689
Western Australia	86,836	93,157	88,940	101,077	104,001
Tasmania	35,077	32,587	32,880	38,046	43,277
Northern Territory	10,459	13,718	14,695	21,329	22,493
Australian Capital Territory	7,647	6,685	(e)10,326	(e)11,416	(e)19,071
Australia	1,021,131	1,075,060	1,112,763	1,173,141	n.a.

(a) Includes Children's Court, except for Darwin Children's Court in the Northern Territory prior to 1970. (b) Excludes minor traffic offences settled without court proceedings. (c) Year ended 30 June. (d) A person charged on several counts at the one hearing is included only once. (e) Includes remand cases, adjournments and court orders not collected prior to 1970.

Differences between States in the preceding table, and within States over a period of time, are influenced by the large number of traffic offences and the arrangements which have been introduced at various times for dealing with them. Provision exists in the States and the internal Territories for settlement of parking and minor traffic offences by payment of fines without court proceedings. The numbers involved are shown in the next table.

MINOR TRAFFIC OFFENCES SETTLED BY PAYMENT OF FINES
WITHOUT COURT PROCEEDINGS

State or Territory	1968	1969	1970	1971	1972
New South Wales	426,496	418,626	456,798	511,005	588,729
Victoria	410,857	443,222	477,332	544,663	(a)611,106
Queensland(b)	253,429	236,320	235,477	257,709	312,029
South Australia(b)	239,619	267,709	244,120	277,464	246,184
Western Australia	83,146	117,436	154,307	176,994	200,723
Tasmania	55,677	56,076	62,408	76,062	107,457
Northern Territory(c)	n.a.	n.a.	8,438	10,444	(d)7,574
Australian Capital Territory	4,430	4,340	5,282	7,229	12,580
Total	1,473,654	1,543,729	1,644,162	1,861,570	2,086,382

(a) Includes 7,022 fines paid direct to the Victorian Railways Commissioners, the Albert Park Committee of Management and several tourist area management authorities, for which details are not available for previous years. (b) Year ended 30 June. (c) No provision for settlement of parking and minor traffic offences by payment of fines without court proceedings existed in the Northern Territory prior to 1970. (d) During 1972 the duties of Darwin's Council Municipal Inspectors were expanded; in addition there was an alteration to Council By-Laws; these changes resulted in a decrease of minor traffic offence fines for that year.

The following tables show the number of cases dealt with in magistrates' courts in which convictions were made.

CASES AT MAGISTRATES' COURTS(a) IN WHICH CONVICTIONS WERE MADE, BY
CLASS OF OFFENCE: 1972

Class of offence	N.S.W.	Vic.	Qld (b)(c)	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Aust.
Against the person	n.a.	4,744	902	1,063	1,593	639	528	249	n.a.
Against property	n.a.	32,498	7,578	7,513	18,288	4,974	1,380	977	n.a.
Forgery and offences against the currency.	n.a.	639	..	20	177	198	105	47	n.a.
Against good order	n.a.	37,897	33,458	15,081	23,433	2,119	10,249	1,047	n.a.
Other(d)	n.a.	245,483	55,594	99,386	52,182	27,574	7,833	11,693	n.a.
Total	n.a.	321,261	97,532	123,063	95,673	35,504	20,095	14,013	n.a.

(a) Includes Children's Courts. (b) Year ended 30 June. (c) A person convicted on several counts at the one hearing is included only once. (d) Includes traffic offences other than minor traffic offences settled without court proceedings.

CASES AT MAGISTRATES' COURTS^(a) IN WHICH CONVICTIONS WERE MADE^(b)

State or Territory	1968	1969	1970	1971	1972
New South Wales	290,616	309,297	337,563	366,701	n.a.
Victoria	291,821	297,574	294,554	291,669	321,261
Queensland ^{(c)(d)}	85,363	89,041	91,198	92,650	97,532
South Australia ^(c)	105,027	105,966	114,499	110,543	123,063
Western Australia	81,892	85,956	79,899	93,548	95,673
Tasmania	30,100	26,515	26,571	32,031	35,504
Northern Territory	9,416	12,543	13,528	20,047	20,095
Australian Capital Territory	6,947	5,681	6,620	8,940	14,013
Australia	901,182	932,573	964,432	1,016,129	n.a.

(a) Includes Children's Courts except for Darwin Children's Court in the Northern Territory prior to 1970. (b) Excludes minor traffic offences settled without court proceedings. (c) Year ended 30 June. (d) A person convicted on several counts at the one hearing is included only once.

The number of cases in which convictions for drunkenness were recorded in recent years are given in the following table.

DRUNKENNESS CASES^(a) IN WHICH CONVICTIONS WERE MADE

State or Territory	1968	1969	1970	1971	1972
New South Wales	57,710	59,048	58,606	58,733	n.a.
Victoria	24,338	25,582	25,054	25,820	28,962
Queensland ^{(b)(c)}	28,409	28,140	31,259	29,878	30,529
South Australia ^(b)	6,889	7,528	9,650	9,365	10,181
Western Australia	11,146	11,970	12,612	16,197	16,379
Tasmania	501	598	541	716	813
Northern Territory	5,216	6,566	6,675	8,217	8,418
Australian Capital Territory	316	388	572	393	712
Australia	134,525	139,820	144,969	149,319	n.a.

(a) Includes Children's Court except for Darwin Children's Court in the Northern Territory prior to 1970. (b) Year ended 30 June. (c) A person convicted on several counts at the one hearing is included only once.

Convictions for certain serious offences at lower (magistrates') courts

The figures given in the preceding tables refer to all convictions, and include offences of a technical nature, drunkenness, and minor breaches of good order, which come under the heading of crime in a very different sense from the more serious offences. The following table has therefore been prepared to show convictions at magistrates' courts for offences against the person, offences against property, forgery, and offences against the currency.

CONVICTIONS FOR CERTAIN SERIOUS OFFENCES^(a) AT MAGISTRATES' COURTS^(b)

State or Territory	1968	1969	1970	1971	1972
New South Wales	37,367	40,583	40,642	44,191	n.a.
Victoria	26,338	30,286	33,025	34,744	37,881
Queensland ^{(c)(d)}	6,604	6,865	7,525	7,373	8,480
South Australia ^(c)	5,817	6,678	7,349	8,040	8,596
Western Australia	12,065	13,622	15,925	19,776	20,058
Tasmania	3,650	3,597	3,813	5,073	5,811
Northern Territory	941	1,397	1,517	1,751	2,013
Australian Capital Territory	1,133	970	729	1,069	1,273
Australia	93,915	103,998	110,525	122,017	n.a.

(a) Offences against the person, offences against property, forgery, and offences against the currency. (b) Includes Children's Courts except for Darwin Children's Court in the Northern Territory prior to 1970. (c) Year ended 30 June. (d) A person convicted on several counts at the one hearing is included only once.

Committals to higher (judges') courts

In the case of other than minor offences a preliminary hearing is held before a stipendiary magistrate or justice of the peace for the purpose of determining whether a *prima facie* case has been made out. If the magistrate or justice of the peace finds that there is a case to answer, the person charged is committed for trial at a higher court. The numbers of such committals are shown in the following tables.

COMMITTALS TO HIGHER COURTS(a), BY CLASS OF OFFENCE, 1972

<i>Class of offence</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i> <i>(b)(c)</i>	<i>S.A.</i> <i>(b)</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Against the person	n.a.	1,555	534	315	143	226	87	78	n.a.
Against property	n.a.	4,004	1,797	570	618	639	255	209	n.a.
Forgery and offences against the currency	n.a.	774	..	11	35	11	41	4	n.a.
Against good order	n.a.	82	5	65	51	26	7	3	n.a.
Other	n.a.	497	29	42	46	516	12	42	n.a.
Total	n.a.	6,912	2,365	1,003	893	1,418	402	336	n.a.

(a) Includes committals from Children's Courts. (b) Year ended 30 June. (c) A person committed on several counts at the one hearing is included only once.

COMMITTALS TO HIGHER COURTS(a)

<i>State or Territory</i>	<i>1968</i>	<i>1969</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>
New South Wales	8,229	9,793	9,173	11,055	n.a.
Victoria	6,192	5,515	6,446	6,710	6,912
Queensland(b)(c)	1,428	1,579	1,733	2,172	2,365
South Australia(b)	726	749	742	873	1,003
Western Australia	1,037	950	1,270	1,507	893
Tasmania	716	747	1,012	1,056	1,418
Northern Territory	196	241	151	116	402
Australian Capital Territory	240	219	278	179	336
Australia	18,764	19,793	20,805	23,668	n.a.

(a) Includes committals from Children's Courts except for Darwin Children's Court in the Northern Territory prior to 1970. (b) Year ended 30 June. (c) A person committed on several counts at the one hearing is included only once.

Higher (judges') courts

Higher courts are presided over by a judge, sometimes with a jury. The general jurisdiction of the higher courts in the States and Territories, which for this purpose include District, County and Supreme Courts, includes appeals from the lower courts, cases of serious crime committed for trial or sentence by lower courts, and civil cases involving common law, commercial causes, equity, etc. Under the Australian *Matrimonial Causes Act* 1959-1973, the Supreme Courts of the various States and Territories have exclusive jurisdiction in matrimonial causes, and under the *Bankruptcy Act* 1966-1973, the Federal Court of Bankruptcy, the Supreme Courts of New South Wales, Queensland, Western Australia, Tasmania and the Northern Territory, and the Courts of Insolvency in Victoria and South Australia, can deal with bankruptcy cases. However, in practice, the Federal Court deals with bankruptcy cases in New South Wales and Victoria.

Proceedings at higher courts therefore include criminal, civil, divorce, and bankruptcy proceedings. Separate details of all except civil proceedings are given in the following paragraphs.

Criminal proceedings

The statistics in the following tables are influenced by the factors listed in the second paragraph at the beginning of this chapter.

PERSONS CONVICTED(a) AT HIGHER COURTS: BY NATURE OF OFFENCE, 1972

Offence	N.S.W.	Vic.	Qld(b)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Against the person—									
Murder	26	10	3	4	16	1	1	..	61
Attempted murder	1	1	6	..	2	3	..	..	13
Manslaughter(c)	34	16	6	3	12	6	1	3	81
Culpable driving	79	15	43	3	..	11	1	1	153
Rape	64	31	39	7	25	4	4	2	176
Other offences against females	447	241	109	164	1	34	11	9	1,016
Abduction	8	11	1	2	1	..	..	..	23
Unnatural offences	59	69	26	15	4	5	5	..	183
Abortion and attempt to procure	13	2	3	..	..	..	..	..	18
Bigamy	17	3	..	1	2	..	..	..	23
Malicious wounding and aggravated assault	239	74	92	7	35	18	4	9	478
Common assault	52	34	7	1	..	6	..	3	103
Other offences against the person	24	5	13	25	4	5	7	15	98
<i>Total, against the person</i>	<i>1,063</i>	<i>512</i>	<i>348</i>	<i>232</i>	<i>102</i>	<i>93</i>	<i>34</i>	<i>42</i>	<i>2,426</i>
Against property—									
Burglary, breaking and entering	1,392	406	880	479	355	122	63	33	3,730
Robbery and stealing from the person	286	173	55	34	33	49	11	17	658
Embezzlement and larceny by servants	106	57	10	13	20	1	..	..	207
Other larceny(d)	891	199	236	44	43	..	6	5	1,424
Receiving	232	41	155	8	6	4	1	2	449
Fraud and false pretences	146	63	(e)20	18	14	13	4	..	278
Arson	38	17	16	4	4	15	..	1	95
Malicious damage	19	33	21	3	1	15	..	2	94
Other offences against property	17	..	..	11	..	3	5	12	48
<i>Total, against property</i>	<i>3,127</i>	<i>989</i>	<i>1,393</i>	<i>614</i>	<i>476</i>	<i>222</i>	<i>90</i>	<i>72</i>	<i>6,983</i>
Forgery and offences against the currency	66	98	..	10	9	5	4	(f)7	199
Against good order	40	47	4	12	8	..	7	..	118
Other	63	171	13	96	67	4	5	..	419
Grand total	4,359	1,817	1,758	964	662	324	140	121	10,145

(a) A person convicted on several counts at the one hearing is classified according to the most serious offence and is included only once. (b) Year ended 30 June. (c) Includes causing death by dangerous driving. (d) Includes unlawfully using vehicles. (e) Includes forgery and uttering. (f) Includes false pretences.

PERSONS CONVICTED(a) AT HIGHER COURTS

State or Territory	1968	1969	1970	1971	1972
New South Wales	3,254	3,609	3,804	4,024	4,359
Victoria	1,790	1,689	1,752	1,805	1,817
Queensland(b)	1,160	1,610	1,402	1,720	1,758
South Australia	692	712	694	931	964
Western Australia	507	518	693	755	662
Tasmania	243	292	337	401	324
Northern Territory	88	120	87	114	140
Australian Capital Territory	86	68	96	94	121
Australia	7,820	8,618	8,865	9,844	10,145

(a) See footnote (a) in table above. (b) Year ended 30 June.

Capital punishment

There were no executions in Australia in 1973. For a brief account of the law relating to capital punishment in Australia, see Year Book No. 55, page 573.

Bankruptcy

For a description of the provisions of the *Bankruptcy Act* 1966-1969, see Year Book No. 55, pages 586-7. The Bankruptcy Act was amended in 1970 to remove any obstacle the Act may present to the operation of compositions or schemes of arrangement entered into under State or Territory legislation providing assistance to farmers in respect of their debts.

Bankruptcy proceedings

The following table shows the number of bankruptcies of the various types in each State, together with the disclosed assets and liabilities of the debtors.

BANKRUPTCY PROCEEDINGS, 1972-73

State or Territory		<i>Sequestration orders and orders for administration of deceased debtors' estates</i>	Compositions	Deeds of assignment	Deeds of arrangement	Total
N.S.W.(a)	Number	521	15	26	12	574
	Liabilities \$	4,175,486	599,414	1,130,138	473,772	6,378,810
	Assets \$	1,945,426	925,484	752,656	249,663	3,873,229
Vic.	Number	452	27	58	22	559
	Liabilities \$	4,281,939	488,857	1,253,374	489,055	6,513,225
	Assets \$	1,277,883	158,825	861,429	217,342	2,515,479
Qld	Number	228	..	8	5	241
	Liabilities \$	2,919,079	..	95,577	96,390	3,111,046
	Assets \$	1,097,235	..	67,712	189,240	1,354,187
S. Aust.	Number	528	4	18	4	554
	Liabilities \$	2,821,609	61,200	316,558	120,264	3,319,631
	Assets \$	1,176,909	14,602	164,199	34,180	1,389,890
W. Aust.	Number	364	25	47	36	472
	Liabilities \$	3,692,944	441,326	1,810,755	1,129,292	7,074,317
	Assets \$	3,497,971	191,345	924,665	901,407	5,515,388
Tas.	Number	151	..	3	9	163
	Liabilities \$	470,191	..	23,745	392,409	886,345
	Assets \$	188,795	..	33,391	540,694	762,880
N.T.	Number	10	..	..	..	10
	Liabilities \$	147,135	..	..	..	147,135
	Assets \$	47,234	..	..	..	47,234
Australia	Number	2,254	71	160	88	2,573
	Liabilities \$	18,508,383	1,590,797	4,630,147	2,701,182	27,430,509
	Assets \$	9,231,453	1,290,256	2,804,052	2,132,526	15,458,287

(a) Includes the Australian Capital Territory.

BANKRUPTCY PROCEEDINGS: AUSTRALIA

Year		Sequestration orders and orders for administration of deceased debtors' estates	Compositions	Deeds of assignment	Deeds of arrangement	Total
1968-69	Number	2,302	52	103	93	2,550
	Liabilities \$'000	15,865	893	3,870	2,641	23,269
	Assets \$'000	7,588	447	2,699	1,674	12,408
1969-70	Number	2,236	59	145	102	2,542
	Liabilities \$'000	18,243	1,006	3,810	2,903	25,962
	Assets \$'000	6,820	423	2,881	2,297	12,421
1970-71	Number	2,428	64	152	139	2,783
	Liabilities \$'000	21,259	849	3,976	4,681	30,765
	Assets \$'000	8,868	286	2,947	5,199	17,300
1971-72	Number	2,684	64	153	135	3,036
	Liabilities \$'000	29,669	1,036	6,298	3,943	40,946
	Assets \$'000	10,243	684	3,377	3,540	17,844
1972-73	Number	2,254	71	160	88	2,573
	Liabilities \$'000	18,508	1,591	4,630	2,701	27,430
	Assets \$'000	9,231	1,290	2,804	2,133	15,458

The High Court of Australia

The High Court of Australia consists of a Chief Justice and six other Justices. Its principal seat is in Sydney, but sittings are held in every State capital as occasion requires. The High Court has both original and appellate jurisdiction. Its original jurisdiction is usually exercised by a single Justice. appellate jurisdiction by at least three Justices. The following table sets out transactions in its original and appellate jurisdiction for 1972 and 1973.

TRANSACTIONS OF THE HIGH COURT OF AUSTRALIA, 1972 AND 1973

Original jurisdiction(a)	1972	1973	Appellate jurisdiction	1972	1973
Number of writs issued	54	80	Number of appeals—		
Number of causes entered for trial	26	28	Set down for hearing	107	90
Judgments for plaintiffs	8	10	Allowed	49	27
Judgments for defendants	2	5	Dismissed	65	59
Otherwise disposed of	10	6	Otherwise disposed of	16	9
Amounts of judgments	\$566,391	\$251,327			

(a) Some matters dealt with by the High Court neither originate as writs nor are entered as causes.

During 1972 and 1973, respectively, the High Court dealt also with the following: appeals from assessments under the Taxation Assessments Act, 81, 48; special cases stated for the opinion of the Full Court, 4, 4; applications for prohibition, etc., 12, 29. The fees collected amounted to \$15,046 in 1972 and \$16,691 in 1973.

Selected crime reported to Police

The following tables show some details of certain categories of offences reported or becoming known to police. This series, which commenced in 1964, is derived from police records and is based, as far as possible, on definitions and procedural arrangements uniformly determined for all States. During 1973 there were minor changes to the collection procedures and some offence definitions which means that 1973 statistics are not strictly comparable with the statistics of previous years. The following explanations are necessary in order to interpret the statistics in this series.

Offences reported or becoming known. All incidents reported or becoming known to the police which are found to constitute offences within the scope of the crimes covered are included. Offences are shown as 'reported or becoming known' in the period during which it has been established that the incident constitutes a crime, not necessarily in the period when the incident occurred. However, the incident is included when the police are satisfied that a crime has been committed, even though it may be established in subsequent proceedings that no crime or a crime of a different nature was committed. As far as possible, the offences are recorded in respect of the State in which the incident occurred, regardless of which police force undertakes investigations or prosecutions, or where an arrest is made. In the case of homicide, assault, robbery, and rape, one offence is counted in respect of each victim, regardless of the number of offenders involved. In the case of breaking and entering, and fraud, etc., one offence is counted for each act or series of directly related acts occurring at the same time and place, and under the same circumstances. Each motor vehicle stolen is counted as constituting a separate offence. Attempted crimes are counted as offences in the appropriate offence category except for attempted murder which is shown separately.

Offences cleared. An offence of the type included in this series is counted as 'cleared' when an information (charge, arrest or summons to appear) has been laid against at least one person involved, for the purpose of bringing an offender before court. However, an offence may also be counted as 'cleared' without an information being laid. This may occur when the offender has received an official caution or has died, has committed suicide, has been committed to a mental institution, or is in another jurisdiction from which extradition is not desired or available, or is serving a sentence; or if there are other obstacles to prosecution, such as diplomatic immunity or that the complainant refuses to prosecute. A clearance is always shown against the classification under which the offence was 'reported', regardless of the nature of the charge laid or changes in the description of an offence due to later information. The entries are made in respect of the year when the offence was 'cleared', whether or not the offence was 'reported' in that or an earlier year.

Persons involved in crimes cleared. This is the sum of the number of persons dealt with in each of the offences shown as 'cleared'. If more than one person is involved in the one offence, each person is counted. If the same person is involved in more than one offence cleared, he is counted separately for each offence. Persons involved are shown against the categories of offences to which an incident was originally allocated, regardless of the actual offences they are charged with. This basis of counting 'persons involved in offences cleared' was adopted to reveal trends in crime participation by persons in various age-groups. The statistics in this series are not directly comparable with statistics of persons charged or convicted in court, or of cases brought before the courts; nor do these statistics reveal the number of offenders in the community.

Offences included in the statistics

Homicide. Separate details are provided for murder, attempted murder (i.e. acts done with intent to murder) and manslaughter (unlawful killing other than murder, and from July 1973 includes manslaughter arising from motor traffic accidents).

Serious assault. This is unlawful attack by one person upon another for the purpose of inflicting severe bodily injury, usually accompanied by the use of a weapon or other means likely to produce death or great bodily harm. Excludes attempted murder, robbery, sexual offences and offences where bodily injury results from negligent acts or omissions. *Uniform interpretation of this definition between States is especially difficult to effect.*

Robbery. Includes situations where the offender uses or threatens to use violence, either immediately before, during or after the time of stealing, to any person or property in order to obtain the thing stolen, or to prevent or overcome resistance to its being stolen. Includes attempts of this nature.

Rape. Includes attempted rape and assault with intent to rape. Excludes unlawful carnal knowledge (i.e. where consent is given, but the girl is below the legal age of consent) and indecent assault.

Breaking and entering. Breaking and entering a building (or entering a building and breaking out) and committing or intending to commit a crime. Includes burglaries. Separate details are shown according to the type of building involved, namely, *dwellings* (including all premises normally used for dwelling purposes whether occupied or not, such as the residential parts of hotels, hostels, schools, colleges, clubs and similar institutions; excludes caravans on wheels, tents, etc.); *shops* (including kiosks, service stations, restaurants, bars, non-residential clubs, etc.); and *offices, factories and warehouses* (including parts of buildings, but excluding dwellings and shops used for such purposes). While attempted breaking and entering offences are included in the scope of the definition, the figures presented in the following table exclude attempts since the table includes breakings involving property valued at more than \$100 and attempted breaking and entering offences are counted with the category of property involved valued at less than \$100. From 1967 the figures exclude breakings involving property valued at \$100 or less. Does not include stealing where there is no breaking.

Motor vehicle thefts, illegal use, etc. Includes all offences of illegal, unlawful or unauthorised use, use without consent, unlawfully assuming control, etc., no matter under which legislation these offences are prescribed. Includes cases where the vehicle is not actually driven away. Excludes cases of 'interference', but includes attempts at illegal use. The number of stolen motor vehicles which are recovered is also shown.

Fraud, forgery, false pretences. Includes all types of fraud, forgery, uttering, falsification of records, false pretences, secret commissions, imposition, fraudulent dealings in goods subject to hire purchase, obtaining credit by fraud, and offences involving false claims, deception, trickery, cheating or breaches of trust. Also included is embezzlement, fraudulent misappropriation, fraudulent conversion and stealing by a bailee, servant or trustee etc. Forgery and or uttering of bank notes is excluded. Separate details are shown for *valueless cheque* offences (i.e. passing of valueless cheques, whether there is no account, insufficient funds or a false signature of the purported drawer of the cheque. However, this sub-group excludes cases where a genuine cheque is altered or the endorsement of the payee is forged. These cases are regarded as forgery and or uttering and included in 'other').

Offences reported or becoming known to police

The following table shows, for each State and Territory, the number of offences in each of the seven categories covered by this series which were reported or became known to police. The table includes offences reported to and investigated by the Commonwealth Police.

**SELECTED CRIME REPORTED OR BECOMING KNOWN TO POLICE:
NUMBER OF OFFENCES**

Category of crime	N.S.W.(a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Homicide—									
1969	120	66	38	21	12	15	7	1	280
1970	125	107	36	34	15	10	9	3	339
1971	134	87	44	27	26	8	15	2	343
1972	134	133	66	28	32	16	10	4	423
1973(b)	189	124	108	29	26	15	7	4	502
Serious assault(c)—									
1969	626	1,460	134	92	77	47	30	17	2,483
1970	799	2,014	177	87	95	32	46	32	3,282
1971	724	2,457	212	115	156	32	120	46	3,862
1972	834	2,801	251	149	97	20	95	38	4,285
1973(d)	929	1,307	266	167	139	21	67	41	2,937
Robbery—									
1969	777	503	106	127	41	23	13	9	1,599
1970	867	744	124	140	69	33	11	11	1,999
1971	1,490	792	205	151	92	39	36	13	2,818
1972	1,484	941	259	162	97	52	27	23	3,045
1973	1,359	834	289	245	96	49	16	19	2,907
Rape—									
1969	126	144	35	32	6	7	7	7	364
1970	136	160	42	21	6	17	29	5	416
1971	204	191	74	44	21	23	17	4	578
1972	172	180	59	57	42	21	8	5	544
1973	242	188	98	75	27	17	21	12	680
Breaking and entering (dwellings, shops, offices, etc.)(e)									
1969	11,923	8,215	2,035	1,299	1,368	586	66	105	25,597
1970	13,879	9,870	2,538	1,727	1,825	492	68	192	30,591
1971	13,394	12,189	3,798	1,878	1,623	666	171	206	33,925
1972	13,904	13,284	4,332	2,460	1,960	637	174	225	36,976
1973	13,184	11,963	3,902	2,724	2,247	583	170	307	35,080
Motor vehicle theft, etc.—									
1969	16,082	9,343	2,295	1,741	1,895	658	228	250	32,492
1970	18,464	11,246	3,023	2,140	2,700	722	347	284	38,926
1971	20,756	12,688	4,090	2,746	3,645	1,012	482	376	45,795
1972	19,895	11,710	4,725	3,073	4,469	1,234	459	359	45,924
1973	18,392	10,725	4,743	3,791	4,431	1,106	571	501	44,260
Fraud, forgery, etc—									
1969(e)	8,940	5,988	4,681	3,221	2,199	972	187	357	26,545
1970	10,657	9,233	4,239	3,797	2,609	800	208	296	31,839
1971	12,769	8,065	5,207	3,788	2,383	783	265	297	33,557
1972	12,134	8,474	6,221	3,560	2,558	1,060	283	283	34,573
1973	14,989	7,525	5,101	3,555	2,735	809	396	610	35,720

(a) Statistics for 1971 and later years are not necessarily comparable with those for earlier years because of changes in reporting procedures. (b) From July 1973, statistics for some States include manslaughter arising from motor traffic accidents. (c) See definitions on page 480. (d) Statistics for Victoria are not comparable with earlier years due to a change in collection procedures in that State. (e) Excludes offences involving property valued at \$100 or less.

Crimes cleared and persons involved

The tables which follow show, for the various categories of offences, the numbers of offences reported, the numbers cleared, and the numbers of persons involved according to age and sex. Sub-divisions of the categories homicide, breaking and entering, and fraud, etc., are provided. See pages 480-1 for definitions used and the bases on which these statistics are prepared.

**HOMICIDE: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED
AND PERSONS INVOLVED, AUSTRALIA**

	<i>Murder</i>			<i>Attempted murder</i>			<i>Manslaughter</i>			<i>All homicide</i>		
	1971	1972	1973	1971	1972	1973	1971	1972	1973(a)	1971	1972	1973
Numbers reported or becoming known . . .	185	208	237	119	169	158	39	46	107	343	423	502
Numbers cleared . . .	178	195	218	112	147	150	39	42	104	329	384	472
Persons involved in crimes cleared—												
Aged(b)(c)—												
16 years and under . . .	9	7	n.a.	3	7	n.a.	1	4	n.a.	13	18	n.a.
17 and 18 years . . .	11	13	n.a.	8	8	n.a.	2	4	n.a.	21	25	n.a.
19 and 20 years . . .	9	13	n.a.	11	27	n.a.	5	4	n.a.	25	44	n.a.
21 years and over . . .	171	187	n.a.	99	139	n.a.	35	34	n.a.	305	360	n.a.
Total persons involved . . .	200	220	n.a.	121	181	n.a.	43	46	n.a.	(d)364	(d)447	n.a.

(a) From July 1973, statistics for some States include manslaughter arising from motor traffic accidents. (b) Age last birthday at time of clearance. (c) Statistics are not presented for persons involved in crimes cleared for 1973 due to a change in collection procedures half-way through the year. (d) Includes 43 females in 1971, and 43 in 1972.

**SERIOUS ASSAULT, ROBBERY, RAPE: CRIMES REPORTED OR BECOMING KNOWN
CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA**

	<i>Serious assault</i>			<i>Robbery</i>			<i>Rape</i>			
	1971	1972	1973	1971	1972	1973	1971	1972	1973	
Numbers reported or becoming known . . .	3,862	4,285	2,937	2,818	3,045	2,907	578	544	680	
Numbers cleared . . .	2,936	3,200	2,086	827	802	834	375	380	431	
Persons involved in crimes cleared—										
Aged(a)(b)—										
16 years and under . . .		363	405	n.a.	251	285	n.a.	39	48	n.a.
17 and 18 years . . .		627	502	n.a.	283	315	n.a.	111	88	n.a.
19 and 20 years . . .		511	433	n.a.	217	245	n.a.	100	81	n.a.
21 years and over . . .		2,168	2,388	n.a.	669	647	n.a.	239	269	n.a.
Total persons involved . . .		(c)3,669	(c)3,728	n.a.	(d)1,420	(d)1,492	n.a.	(e)489	486	n.a.

(a) Age last birthday at time of clearance. (b) Statistics are not presented for persons involved in crimes cleared for 1973 due to a change in collection procedures half-way through the year. (c) Includes 169 females in 1971, and 175 in 1972. (d) Includes 50 females in 1971, and 53 in 1972. (e) Includes 1 female in 1971 (an accessory).

**BREAKING AND ENTERING(a): CRIMES REPORTED OR BECOMING KNOWN, CRIMES
CLEARED, AND PERSONS INVOLVED, AUSTRALIA**

	<i>Dwellings</i>			<i>Shops</i>			<i>Offices and warehouses</i>			<i>Total</i>		
	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
Numbers reported or becoming known . . .	17,707	19,632	n.a.	9,243	9,300	n.a.	6,975	8,044	n.a.	33,925	36,976	35,080
Numbers cleared . . .	2,119	2,327	n.a.	1,854	2,104	n.a.	836	1,072	n.a.	4,809	5,503	5,405
Persons involved in crimes cleared—												
Aged(b)(c)—												
16 years and under . . .	1,072	1,413	n.a.	902	1,109	n.a.	409	624	n.a.	2,383	3,146	n.a.
17 and 18 years . . .	682	526	n.a.	634	720	n.a.	251	320	n.a.	1,567	1,566	n.a.
19 and 20 years . . .	415	384	n.a.	512	501	n.a.	178	233	n.a.	1,105	1,118	n.a.
21 years and over . . .	1,112	1,357	n.a.	1,182	1,466	n.a.	588	802	n.a.	2,882	3,625	n.a.
Total persons involved . . .	3,281	3,680	n.a.	3,230	3,796	n.a.	1,426	1,979	n.a.	(d)7,937	(d)9,455	n.a.

(a) Excludes offences involving property valued at \$100 or less. (b) Age last birthday at time of clearance. (c) Statistics are not presented for persons involved in crimes cleared for 1973 due to a change in collection procedures half-way through the year. (d) Includes 274 females in 1971, and 293 in 1972.

MOTOR VEHICLE THEFT, ETC., FRAUD, ETC.: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA

	<i>Motor vehicle theft, etc.</i>			<i>Fraud, forgery, false pretences</i>						<i>All fraud, etc.</i>		
				<i>Valueless cheques</i>			<i>Other</i>					
	1971	1972	1973	1971	1972	1973	1971	1972	1973	1971	1972	1973
Numbers reported or becoming known .	45,795	42,924	44,260	11,813	12,404	10,488	21,744	22,169	25,232	33,557	34,573	35,720
Numbers cleared .	10,395	11,341	10,425	7,186	7,379	6,489	14,643	14,742	16,674	21,829	22,121	23,163
Persons involved in crimes cleared—												
Males aged(a)(b)—												
16 years and under .	7,754	8,772	n.a.	178	148	n.a.	368	514	n.a.	546	662	n.a.
17 and 18 years .	4,168	4,152	n.a.	303	307	n.a.	673	544	n.a.	976	851	n.a.
19 and 20 years .	1,692	1,846	n.a.	453	568	n.a.	781	619	n.a.	1,234	1,187	n.a.
21 years and over .	2,907	3,053	n.a.	5,455	5,690	n.a.	9,784	8,827	n.a.	15,239	14,517	n.a.
<i>Total males</i> .	<i>16,521</i>	<i>17,823</i>	<i>n.a.</i>	<i>6,389</i>	<i>6,713</i>	<i>n.a.</i>	<i>11,606</i>	<i>10,504</i>	<i>n.a.</i>	<i>17,995</i>	<i>17,217</i>	<i>n.a.</i>
Females aged(a)(b)—												
16 years and under .	269	250	n.a.	55	44	n.a.	128	395	n.a.	183	439	n.a.
17 and 18 years .	71	88	n.a.	54	48	n.a.	320	584	n.a.	374	632	n.a.
19 and 20 years .	49	30	n.a.	108	53	n.a.	314	457	n.a.	422	510	n.a.
21 years and over .	52	74	n.a.	950	973	n.a.	2,914	3,342	n.a.	3,864	4,315	n.a.
<i>Total females</i> .	<i>441</i>	<i>442</i>	<i>n.a.</i>	<i>1,167</i>	<i>1,118</i>	<i>n.a.</i>	<i>3,676</i>	<i>4,778</i>	<i>n.a.</i>	<i>4,843</i>	<i>5,896</i>	<i>n.a.</i>
<i>Total persons involved</i> .	<i>16,962</i>	<i>18,265</i>	<i>n.a.</i>	<i>7,556</i>	<i>7,831</i>	<i>n.a.</i>	<i>15,282</i>	<i>15,282</i>	<i>n.a.</i>	<i>22,838</i>	<i>23,113</i>	<i>n.a.</i>

(a) Age last birthday at time of clearance. (b) Statistics are not presented for persons involved in crimes cleared for 1973 due to a change in collection procedures half-way through the year.

The number of stolen motor vehicles recovered was: 1971, 41,332; 1972, 42,956; 1973, 39,367.

Drug offences

Australia is a signatory to the Single Convention of Narcotic Drugs which has as its main aim the limitation of narcotic drugs to legitimate medical and research purposes.

As its name implies, the Single Convention covers only the so-called narcotic drugs. In recognition that there are other drugs of dependence, the member nations met during 1970 and 1971 and drew up a further Convention to impose controls on psychotropic substances such as hallucinogens, amphetamines, other central nervous system stimulants, barbiturates, tranquilisers and certain other sedatives.

Legislative provisions

Regulation 5 of the Customs (Prohibited Imports) Regulations made under Section 50 of the *Customs Act* 1901-1971 provides the legal controls for the importation of narcotic drugs and other drugs of dependence. Under this regulation all importers of these drugs must be licensed and must obtain permission in writing for each importation. Importers are also required to keep these drugs in a secure place and to keep such records as may be required concerning use or disposal.

The penalty on conviction for an offence relating to narcotic goods as defined in the *Customs Act 1901-1971* is:

(a) In a Court of Summary Jurisdiction—

A fine not exceeding \$2,000 or imprisonment for a period not exceeding 2 years, or both.

(b) On indictment—

A fine not exceeding \$4,000 or imprisonment for a period not exceeding 10 years, or both.

The manufacture of narcotic drugs in Australia is controlled under the *Narcotic Drugs Act 1967*. The Act requires that a manufacturer shall be licensed and shall comply with strict conditions and directions relating to such manufacture and the handling of the drugs concerned. Failure to comply with these requirements constitutes an offence against the Act and the penalty upon conviction for such an offence is:

(a) In a Court of Summary Jurisdiction—

A fine not exceeding \$1,000 or imprisonment for a period not exceeding 2 years, or both.

(b) On indictment—

A fine not exceeding \$4,000 or imprisonment for a period not exceeding 10 years, or both.

State and Territory legislation relating to the regulation, control and prohibition of the sale, use, possession and administering (including smoking) of poisons, restricted substances, drugs of addiction, dangerous drugs and deleterious substances, is listed below.

New South Wales	Poisons Act, 1966-1967; Summary Offences Act, 1970
Victoria	<i>Poisons Act 1962</i>
Queensland	' <i>The Health Acts 1937 to 1967</i> '
South Australia	Narcotic and Psychotropic Drugs Act, 1970 (formerly Dangerous Drugs Act, 1934-1955); Food and Health Act, 1908-1962; Police Offences Act, 1953-1961
Western Australia	<i>Police Act, 1892-1967; Poisons Act 1964</i>
Tasmania	<i>Dangerous Drugs Act 1959; Alcohol and Drug Dependancy Act 1968; Health Services Act 1960</i>
Northern Territory	<i>Dangerous Drugs Ordinance 1928-1973; Poison Ordinance 1924-1970.</i>
Australian Capital Territory	<i>Poisons and Dangerous Drugs Ordinance 1967</i>

In some States this legislation also provides for the offence of 'trafficking' (where there is possession of a minimum specified quantity of a prescribed substance, prohibited drug, or drug of addiction, such possession being *prima facie* for the offence), and for the offence of being the owner, lessee, or concerned in the management of any premises used for the purposes of drug abuse such as the smoking of opium or indian hemp. Offences of habitually consorting, etc., with reputed drug offenders are also covered under State legislation.

During 1971 some States introduced legislation requiring that stocks of dangerous drugs in pharmacies be stored in heavy metal safes.

All State Governments have agreed to a uniform code of penalties based on those applicable in Australian Government legislation. Some State Governments have already taken the legislative action to implement this decision.

Law enforcement

Law enforcement in respect of drugs is handled by State police forces, the Commonwealth Police Force, and the Department of Customs and Excise. In 1969 a National Standing Control Committee on Drugs of Dependence was established to consider further action by the Commonwealth and States to combat all aspects of the drug problem in Australia and to make recommendations on legislation and administrative action. The Committee is chaired by the Comptroller-General of Customs and its members comprise senior officers of Commonwealth and State police and health authorities.

The National Standing Control Committee on Drugs of Dependence recommended that the Central Crime Intelligence Bureau of the Commonwealth Police serve as the national agency for the systematic collection, evaluation and dissemination of information concerning the illicit drug traffic in Australia. During 1973, the fourth complete year for which the Central Crime Intelligence Bureau compiled statistics, 6,449 drug offences, for which 3,080 males and 519 females were prosecuted, were reported to the Bureau. Details of the offences and the drugs involved are given in the following table.

PROSECUTIONS AND CONVICTIONS FOR DRUG OFFENCES REPORTED TO THE CENTRAL CRIME INTELLIGENCE BUREAU: PERSONS INVOLVED, AUSTRALIA 1973

(Source: Commonwealth Police)

Offence	Number of offenders	Number of individual charges	Convictions on individual charges	Fines imposed		Gaal sentences		Number of bonds granted (a)	Number of charges not proceeded with or dismissed	Number of charges pending
				Number	Amount	Number	Months			
\$										
Unlawful possession—										
Males aged—										
16 years and under	83	84	48	17	1,465	..	..	28	10	29
17 and 18 years .	378	410	285	156	30,750	20	176	97	19	118
19 and 20 years .	618	661	466	392	72,870	34	199	114	17	193
21 years and over .	1,234	1,341	973	690	168,037	18	991	194	44	395
Total males .	2,313	2,496	1,772	1,255	273,122	72	1,366	433	90	735
Females aged—										
16 years and under	30	31	22	3	610	1	12	13	3	6
17 and 18 years .	78	85	60	33	7,605	1	6	37	6	15
19 and 20 years .	90	100	72	33	6,765	6	33	24	8	24
21 years and over .	125	138	99	60	11,935	4	83	31	7	31
Total females .	323	354	253	129	26,915	12	134	105	24	76
Unlawful import—										
Males aged—										
16 years and under	..	..	..	..	..	..	..	..	..	..
17 and 18 years .	5	5	4	3	800	..	..	1	..	1
19 and 20 years .	12	14	8	7	2,050	..	..	1	..	6
21 years and over .	89	102	69	45	12,420	18	437	6	..	32
Total males .	106	121	81	55	15,270	18	437	8	..	39
Females aged—										
16 years and under	..	..	..	..	..	..	..	..	..	..
17 and 18 years .	..	..	..	..	..	..	..	..	..	..
19 and 20 years .	2	2	1	1	400	..	..	..	..	1
21 years and over .	13	15	9	4	1,100	4	107	1	..	6
Total females .	15	17	10	5	1,500	4	107	1	..	7
Unlawful use—										
Males aged—										
16 years and under	84	86	60	14	845	1	24	36	8	27
17 and 18 years .	301	342	232	119	15,825	9	67	80	16	103
19 and 20 years .	408	453	296	195	28,310	13	104	81	20	138
21 years and over .	632	676	492	323	48,480	41	392	105	20	172
Total males .	1,425	1,557	1,080	651	93,460	64	587	302	64	440
Females aged—										
16 years and under	45	51	27	..	..	1	12	21	5	20
17 and 18 years .	81	90	55	15	2,175	1	9	39	9	23
19 and 20 years .	55	58	46	17	2,605	3	16	23	3	12
21 years and over .	62	82	55	28	3,780	3	7	19	2	26
Total females .	243	282	183	60	8,560	8	44	102	19	81
Theft—										
Males aged—										
16 years and under	5	5	2	..	..	..	..	2	..	3
17 and 18 years .	21	24	15	..	..	3	54	8	..	9
19 and 20 years .	33	59	28	1	200	17	120	10	6	25
21 years and over .	39	92	47	4	550	14	233	7	2	63
Total males .	98	180	92	5	750	34	407	27	8	100
Females aged—										
16 years and under	1	1	..	..	..	..	..	..	1	..
17 and 18 years .	2	2	1	..	..	..	..	..	..	1
19 and 20 years .	5	7	1	..	..	..	..	1	..	5
21 years and over .	12	24	6	..	..	..	..	6	2	15
Total females .	20	34	8	..	..	..	..	7	4	21

For footnote; see next page.

PROSECUTIONS AND CONVICTIONS FOR DRUG OFFENCES REPORTED TO THE CENTRAL CRIME INTELLIGENCE BUREAU: PERSONS INVOLVED, AUSTRALIA 1973—*continued*

Offence	Number of offenders	Number of individual charges	Convictions on individual charges	Fines imposed		Gaol sentences		Number of bonds granted (a)	Number of charges not proceeded with or dismissed	Number of charges pending
				Number	Amount	Number	Months			
§										
Trafficking—										
Males aged—										
16 years and under	8	10	5	2	150	..	..	2	1	6
17 and 18 years .	43	60	46	12	2,270	10	122	24	1	10
19 and 20 years .	57	119	75	19	5,200	44	238	13	8	33
21 years and over .	175	223	106	31	7,630	48	598	29	11	105
Total males .	283	412	232	64	15,250	102	958	68	21	154
Females aged—										
16 years and under	2	2	1	1	75	..	..	..	1	..
17 and 18 years .	9	12	6	2	175	1	21	3	1	5
19 and 20 years .	11	14	9	4	680	1	12	2	2	2
21 years and over .	13	16	7	1	100	2	4	3	5	5
Total females .	35	44	23	8	1,030	4	37	8	9	12
Other offences—										
Males aged—										
16 years and under	10	10	10	2	110	1	24	6	..	..
17 and 18 years .	62	69	54	25	5,215	2	27	14	6	9
19 and 20 years .	122	127	88	69	11,925	2	42	16	4	35
21 years and over .	287	460	280	162	27,860	48	312	69	9	169
Total males .	481	666	432	258	45,110	53	405	105	19	213
Females aged—										
16 years and under	6	6	4	..	..	1	12	3	..	2
17 and 18 years .	12	13	8	2	650	..	..	4	2	3
19 and 20 years .	24	30	15	7	830	3	7	3	1	15
21 years and over .	38	57	46	12	1,870	3	7	17	..	11
Total females .	80	106	73	21	3,350	7	26	27	3	31
Total males .	4,706	5,432	3,889	2,288	442,962	343	4,160	943	202	1,681
Total females .	716	837	550	223	41,355	35	348	250	59	228

(a) Bonds include suspended gaol sentences and/or other recognisance to be of good behaviour for a specific time.

NUMBER OF CHARGES(a) INVOLVING SPECIFIC DRUG TYPES

(Source: Commonwealth Police)

Type of drug	Possess	Import	User/ad- minister	Traffic	Steal	False pretences	Forge prescription	Other	Total(b)
Narcotics—									
Cocaine	29	..	16	7	16	..	..	4	72
Codeine	4	..	1	1	..	6	1	1	14
Palfium	17	..	20	11	6	20	65	4	143
Physeptone	14	..	23	8	4	11	47	2	109
Morphine	78	..	82	15	54	14	35	13	291
Fortral . . . . .	..	..	..	..	1	3	37	..	41
Opium preparations	22	8	23	3	8	..	..	1	65
Pethedine	25	..	28	3	47	13	42	3	161
Omnoyon	5	..	6	..	12	..	..	1	24
Heroin	94	10	101	34	..	..	..	4	243
Hydromorphone . . . . .	..	..	2	..	..	..	..	..	2
Phenoperidine	1	..	1	..	..	..	..	..	2
Pholecodine	1	..	1	..	..	..	..	..	2
Total	290	18	304	82	148	67	227	33	1,169
Cannabis—									
Plants	146	1	..	1	..	..	..	87	235
Seeds	189	12	..	1	3	..	..	1	206
Marihuana	2,222	83	1,376	233	3	..	..	318	4,235
Hashish	69	35	14	7	3	..	..	2	130
Cannabinol	8	..	..	..	..	..	..	..	8
Liquid hash	8	7	1	1	..	..	..	2	19
Total	2,642	138	1,391	243	9	..	..	410	4,833
Amphetamines—									
Amphetamine	25	..	6	7	3	..	..	5	46
Dexamphetamine	7	..	..	..	..	1	..	..	8
Drinamyl	3	..	..	..	1	..	..	..	5
Methyl-amphetamine	1	..	6	1	..	..	5	..	13
Methyl-phenidate	4	..	..	..	..	..	24	..	28
Other unspecified amphetamine	8	..	4	4	..	..	25	..	41
Phenmetrazine	1	..	..	..	..	..	..	..	1
Ponderax . . . . .	..	..	..	..	..	..	2	..	2
Total	49	..	16	12	4	2	56	5	144
Barbiturates/hypnotics—									
Amylobarbitone	4	..	..	..	1	..	..	..	5
Phenobarbitone	8	..	2	1	1	..	3	..	15
Quinalbarbitone . . . . .	..	..	1	..	..	..	1	..	2
Other barbiturates	3	..	3	..	3	..	1	..	10
Methaqualone	9	..	3	10	4	..	1	1	28
Nitrazepam	1	..	..	..	1	..	..	..	2
Phenobarbital	2	..	..	..	..	..	..	..	2
Total	27	..	9	11	10	..	6	1	64
Tranquillisers—									
Valium	10	1	4	2	3	1	2	..	23
Chlopromazine	1	..	..	..	..	..	..	..	1
Other	1	..	..	..	..	..	..	..	1
Total	12	1	4	2	3	1	2	..	25
Hallucinogens—									
L.S.D.	179	15	120	122	..	..	..	..	436
Psilocybine	23	..	4	..	..	..	..	..	27
Mescaline	3	..	..	1	1	..	..	..	5
Other hallucinogens	2	..	..	..	..	..	..	..	2
Total	207	15	124	123	1	..	..	..	470
Grand Total	3,227	172	1,848	473	175	70	291	449	6,705

(a) If a number of different drug types have been involved in an offence, they are counted under each drug category. (b) As a percentage of all charges, cannabis comprises 72.52 per cent; narcotics, 17.09 per cent; hallucinogens, 7.01 per cent; barbiturates/hypnotics, 0.95 per cent; amphetamines, 2.15 per cent; tranquillisers, 0.37 per cent.

In 1969 the Commonwealth Bureau of Narcotics was created within the Department of Customs and Excise, as part of the Government's campaign to combat the increasing incidence of illicit trafficking of drugs in Australia. The Bureau operates on a national basis and is made up of three sections:

Treaties, Control and Secretariat Section—responsible for the control of legal importation and exportation of all drugs of dependence as well as controlling the manufacture of narcotic drugs in Australia. The section is also responsible for ensuring that Australia's obligations, as a signatory to the various international conventions on drugs, are complied with.

International Enforcement and Liaison—responsible for maintaining an effective system for the exchange of information with overseas law enforcement agencies concerned with the suppression of illicit trafficking in drugs.

National Enforcement—responsible for the prevention of, and investigations into, illegal importation, exportation, and major trafficking of drugs. Its activities are concentrated in co-ordinated operations against importers and major distributors.

The following table shows the types of drugs and amounts seized by the Department of Customs and Excise in recent years.

DRUG SEIZURES BY THE DEPARTMENT OF CUSTOMS AND EXCISE

Type of drug	Unit	1969	1970	1971	1972	1973
Amphetamines	gram . . . . .	..	11,379	18	79	50
	tablet	688	..	1,421	493	127
Barbiturates	gram . . . . .	..	..	22	37	..
	tablet . . . . .	..	2,800	287	1,050	265
Cannabis	gram	47,809	98,078	178,654	541,929	1,107,189
Cocaine	gram . . . . .	..	..	4	198	121
	tablet . . . . .	..	120	9	..	..
L.S.D.	dosage unit	368	17,611	21,676	69,863	23,442
Narcotics—						
Opium	gram	889	9,950	6,094	2,746	3,020
Heroin	gram	196	1,405	2,468	2,018	3,116
Morphine	gram . . . . .	..	29	31	158	1,536
	ampoule	8	18	6	16	2
tablet . . . . .	..	..	151	2	..	..
Pethidine	tablet/ampoule . . . . .	..	43	6	43	51

The number of offenders charged with drug offences by the Department of Customs and Excise, and the sentences imposed are given in the following table. Particulars of all drug offences in 1973 reported to the Central Crime Intelligence Bureau are shown in the table on pages 485-6.

PROSECUTIONS AND CONVICTIONS UNDER THE CUSTOMS ACT AND THE NARCOTIC DRUGS ACT FOR OFFENCES INVOLVING DRUGS OF DEPENDENCE

(Source: Department of Customs and Excise)

Offence and year	Number of offenders	Number of individual charges	Con- victions on indiv- idual charges	Fines imposed		Gaol sentences		Number of bonds granted (a)	Number of charges not pro- ceeded with or dis- missed	Number of charges pending
				Number	Amount	Number	Months			
Unlawful possession—					\$					
1969	61	63	60	50	9,490	5	57	5	1	2
1970	79	82	68	50	18,415	19	220	4	5	9
1971	53	56	31	13	2,870	14	266	4	12	13
1972	85	89	63	46	13,275	14	220	2	9	18
1973	37	39	36	31	9,780	4	69	1	2	1
Unlawful import—										
1969	32	34	27	20	5,300	7	84	1	..	7
1970	55	62	58	36	15,285	16	238	9	..	4
1971	74	78	60	41	11,005	16	188	3	2	16
1972	105	116	86	46	13,207	34	694	5	6	23
1973	112	115	97	58	14,258	20	220	9	10	18
Other offences—										
1969	5	5	4	3	500	1	6	..	1	..
1970	12	13	12	11	700	..	..	..	1	..
1971	15	15	10	6	3,950	4	88	..	..	5
1972	48	56	25	15	3,675	6	102	5	16	14
1973	24	26	16	11	2,850	3	48	2	5	5

(a) Bonds include suspended gaol sentences and/or other recognisances to be of good behaviour for a specified period.

NOTE. Where dual penalties such as a fine and a bond were imposed both are included.

Senate Select Committee

On 25 November 1969, by resolution of the Senate, a Select Committee into Drug Trafficking and Drug Abuse was established. The report of the findings of the Senate Select Committee was tabled in May 1971.

Police

The primary duties of the police are to prevent crime, to detect and detain offenders, to protect life and property, to enforce the law, and to maintain peace and good order. In addition, they perform many duties in the service of the State, e.g. they act as clerks of petty sessions in small centres, as crown land bailiffs, foresters, mining wardens, and inspectors under the fisheries and various other

Acts. In metropolitan and large country areas they also regulate the street traffic. With the exception of the Commonwealth Police Force and the police in the Northern Territory and the Australian Capital Territory, the police forces of Australia are under the control of the State Governments, but their members perform certain functions for the Australian Government, such as acting as aliens registration officers and concurrently with Commonwealth Police and other Commonwealth Officers, policing various Commonwealth Acts and Regulations.

Women police perform special duties at places where young women and girls are subject to moral danger, control traffic at school crossings and lecture school children on road safety. They also assist male police as required in the performance of normal police duties.

The strength of the police force and the duties and ranks of the personnel involved in each State and Territory for 1973 are shown in the following table. Comparability between States is affected by differences in the classification of ranks and duties, and known differences between States are mentioned in footnotes.

Also included in the table are statistics of ancillary and civilian staff employed by police departments. Differences between States in the use of such staff are considerable. These differences arise, on the one hand, from differences in the extent to which police make use of such staff for police functions and, on the other hand, in the extent to which such staff are required to undertake additional functions (such as parking control) which are allocated to the police in varying degrees between States. There is also some overlap between duties of ancillary and civilian staff as defined in the footnotes to the table.

POLICE FORCES AND ASSISTANT STAFF, 30 JUNE 1973

<i>Duty and rank(a)</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>
POLICE FORCES								
Criminal investigations, plain clothes police, scientific duties—								
Executive officers	5	3	1	1	3	1	..	..
Inspectors	21	26	9	6	3	5	12	14
Sergeants	357	72	157	51	94	39	12	14
Constables(b)	918	664	(c)340	266	195	81	32	32
Total, criminal investigations, etc.	1,301	765	(c)507	324	295	126	45	47
Traffic duties—								
Executive officers	3	4	1	1	1	1	..	..
Inspectors	7	13	3	3	8	3	..	1
Sergeants	155	23	54	18	45	9	3	14
Constables(b)	888	488	(c)133	218	194	88	14	82
Total, traffic duties	1,053	528	(c)191	240	248	101	17	97
Other special and general duties—								
Executive officers	28	38	6	10	13	4	..	..
Inspectors	126	154	75	44	23	36	3	11
Sergeants	1,343	273	653	179	269	100	51	50
Constables(b)	(d)3,772	3,470	(c)1,773	1,343	870	420	194	228
Total, other special, etc.	5,269	3,935	(c)2,507	1,576	(e)1,175	560	(f)248	(f)289
Not allocated—								
Executive officers whose duties extend beyond one branch								
Inspectors	8	5	5	4	4	2	3	2
Police women	102	163	(g)	45	38	..	5	..
Trainees and cadets	311	114	308	373	47	103	..	..
Total, not allocated	421	282	313	422	89	105	8	2
Total police force—								
Executive officers	44	50	13	16	21	8	3	2
Inspectors	154	193	87	53	34	44	4	13
Sergeants	1,855	368	861	248	408	148	66	78
Constables(b)	5,578	4,622	(c)2,112	1,827	1,259	589	240	342
Police women	102	163	137	45	38	..	5	..
Trainees and cadets	311	114	308	373	47	103	..	..
Total police force	8,044	5,510	3,518	2,562	1,807	892	318	435
ANCILLARY AND CIVILIAN STAFF								
Employed by Police Department—								
Ancillary staff(h)—								
Full-time	222	130	25	198	..	..	35	..
Part-time . . . . .	..	4	..	2	171	..	..	..
Civilian staff(i)—								
Full-time	(j)1,385	899	506	110	(k)515	150	31	57
Part-time . . . . .	..	71	31	8	72	..	..	2

For footnotes see next page.

POLICE FORCES AND ASSISTANT STAFF, 30 JUNE 1973—*continued*

<i>Duty and rank(a)</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>
TOTAL STAFF								
Grand total—								
Full-time	9,651	6,539	4,049	2,825	2,322	1,042	384	492
Part-time		75	31	10	243			2

(a) Where more than one duty is involved, officers have been allocated to the category of duties in which the greater part of their time is spent. The allocation of executive officers and inspectors to categories of duties is necessarily somewhat arbitrary and varies from State to State. (b) Includes probationary constables. (c) Excludes probationary constables; included with trainees and cadets. (d) Includes 19 constables on National Service. (e) Includes officers engaged on motor vehicle examination and testing and licensing drivers. (f) Does not include transport and maintenance; each section undertakes its own transport, and maintenance is done on contract and/or by the government transport pool. (g) For Queensland police women are included in the personnel figures for each rank of the respective duties. (h) Parking police, native trackers, wardresses, etc.; special constables in New South Wales and Tasmania; police reservists in Victoria. (i) Clerks, typists, artisans, cleaners, etc.; Includes Commissioner and Deputy Commissioner in Tasmania. (j) Does not include cleaning which is done by the Cleaning Services Branch of the Government Stores Department. (k) Includes 71 cadets whose appointment is not subject to the Police Act.

Ancillary and civilian staff are excluded from the following table.

POLICE FORCES

<i>30 June—</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
1969	7,259	4,743	3,179	2,255	1,490	670	195	288	20,079
1970	7,324	4,739	3,221	2,282	1,529	701	235	290	20,321
1971	7,470	4,945	3,197	2,360	1,616	796	259	347	20,990
1972	7,914	5,274	3,353	2,445	1,686	879	281	398	22,230
1973	8,044	5,510	3,518	2,562	1,807	892	318	435	23,086

Commonwealth Police Force

The Commonwealth Police Force commenced operations on 21 April 1960, and is the principal agency for the enforcement of the laws passed by the Australian Parliament. It is also responsible for the protection of Australian Government property and interests at various buildings and establishments under the control of the Australian Government. This force co-ordinates the work of other investigation and law enforcement agencies and acts on behalf of the United Nations Organisation for the suppressing of traffic in women and the suppression of obscene literature.

Under the control of the force is the Australian Police College at Manly, New South Wales, which provides training for officers of various police forces and other agencies in Australia and New Zealand. The force has its Head Office in Canberra and District Offices in each capital city. The establishment of the force at 30 June 1973 was 1,180 policemen and 5 policewomen. At that date there were, in addition, 123 civilian employees.

Prisons

Prisons and prison accommodation

PRISONS AND PRISON ACCOMMODATION, 30 JUNE 1972

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>Aust.</i>
Prisons	26	13	9	16	13	1	2	80
Accommodation	3,496	2,666	1,308	1,497	1,648	440	237	11,292

There is no gaol in the Australian Capital Territory, but there are two lock-ups attached to police stations at Canberra and another lock-up at Jervis Bay where offenders are held for short periods. Prisoners remanded or sentenced by a court in the Australian Capital Territory for more than five days are usually held in New South Wales prisons.

Convicted prisoners

CONVICTED PRISONERS

30 June—	Australia							Number	Per 10,000 of popu- lation
	N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.		
1968 . . .	3,292	2,103	958	926	1,150	281	120	8,830	7.3
1969 . . .	3,327	2,199	1,065	884	1,214	331	177	9,197	7.5
1970 . . .	3,429	2,178	1,104	836	1,174	327	198	9,246	7.4
1971 . . .	3,493	2,276	1,142	854	1,261	352	166	9,544	7.5
1972 . . .	3,641	2,192	1,313	816	1,269	339	252	9,822	7.6

(a) Includes Australian Capital Territory prisoners held in New South Wales prisons.

Expenditure on law, order and public safety

Expenditure on law, order and public safety

The following table shows the identifiable expenditure on goods and services of Australian Government and State public authorities whose activities are primarily directed towards serving the purposes of law, order and public safety. Because of differing legislative and administrative arrangements and differing accounting practices in the various States, the activities covered by the figures are not the same in each State; and the activities covered by the Australian Government figures differ from those of the States because of the Australian Government's different responsibilities in this field. The Australian Government and State figures are therefore not strictly comparable; but they have been compiled by uniform methods, and each series is comparable from year to year.

ALL PUBLIC AUTHORITIES: EXPENDITURE ON LAW, ORDER AND PUBLIC SAFETY
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
Final consumption expenditure—					
Authorities of the Australian Government	18.1	21.3	25.2	31.1	38.1
State Authorities—					
New South Wales	71.9	81.5	93.7	111.4	127.5
Victoria	43.7	48.3	53.4	63.1	73.0
Queensland	27.8	31.5	38.9	41.7	53.0
South Australia	14.4	15.6	18.2	21.3	25.0
Western Australia	15.3	18.7	22.7	28.8	32.4
Tasmania	6.5	7.1	8.4	10.4	12.4
Total States	179.7	202.6	235.3	276.7	323.3
Total current expenditure	197.8	223.9	260.5	307.8	361.4
Gross fixed capital expenditure—					
Authorities of the Australian Government	1.6	1.5	2.0	2.6	3.0
State Authorities—					
New South Wales	7.2	9.3	10.6	10.9	13.6
Victoria	6.9	4.4	3.9	5.0	5.0
Queensland	3.9	4.6	4.4	6.7	6.5
South Australia	1.3	1.6	2.3	2.9	1.7
Western Australia	3.0	3.5	3.3	1.8	1.5
Tasmania	1.0	1.0	1.7	2.2	2.7
Total States	23.3	24.4	26.3	29.5	31.0
Total capital expenditure	24.9	25.9	28.3	32.1	34.0
Total expenditure	222.7	249.8	288.8	339.9	395.4

Fire brigades

New South Wales

A Board of Fire Commissioners, consisting of seven members, two appointed by the State Government (President and Deputy President), two representing insurance companies and one each representing, local government authorities, volunteer firemen, and permanent firemen, operates under the Fire Brigades Act, 1909-1970, and 172 fire districts had been constituted at the end of 1973. The cost of maintenance of fire brigades is borne in proportions of local councils and the Government each one-eighth, and insurance companies three-quarters.

At 31 December 1973 the actual strength of the Fire Brigade throughout the fire districts of New South Wales was 501 officers and 1,417 permanent and 2,730 volunteer firemen. Corresponding figures for the Sydney Fire District were 400, 1,203 and 203. The revenue for the year 1973 was \$18,321,190, as follows: from the Government, \$2,254,736; municipalities and shires, \$2,254,736; fire insurance companies and firms, \$13,528,416; and from other sources, \$283,302. The disbursements for the year were \$19,822,851. The Board of Fire Commissioners provides the fire protection services for Canberra, in the Australian Capital Territory, and the cost of these services is reimbursed by the Australian Government.

Under the Bush Fires Act, 1949 a Bush Fire Fighting Fund exists from which finance is provided for the prevention and fighting of bush fires. Contributions to the Fund by the Government, councils and insurance companies are in the proportion of one-quarter, one-quarter and one-half, respectively. At 30 June 1973 Volunteer Brigades equipped by means of this fund numbered about 2,420 with an active membership of approximately 60,000 persons. The expenditure from the Fund for equipment, up to 30 June 1973, amounted to \$15,041,819.

Victoria

In Victoria, fire brigades are controlled by the Metropolitan Fire Brigades Board consisting of eight members, including an employees' representative, and the Country Fire Authority consisting of eleven members.

Metropolitan Fire Brigades Board. The Metropolitan Fire Brigades Board receives contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. At 30 June 1973 the Board had under its control 47 stations, 1,248 permanent staff, and 251 special service and clerical, etc., staff. The total receipts for 1972-73 were \$13,145,704, comprising contributions \$11,641,121, receipts for services \$966,334, and interest and sundries \$538,249. The expenditure was \$12,605,698.

Country Fire Authority. This authority is responsible for the prevention and suppression of fires in the 'country area of Victoria', which embraces the whole of the State outside the Metropolitan Fire District, excluding State forests, National Parks and certain Crown lands. The country area has been divided into twenty-five fire control regions, three of which (Ballarat, Bendigo and Geelong) are wholly urban and the remainder mixed urban and rural. The Country Fire Authority receives contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury. At 30 June 1973 the Country Fire Authority Act applied to 147 insurance companies and 212 urban and 1,054 rural fire brigades. Permanent staff of the Authority totalled 331 (including administrative), while the effective strength of volunteer personnel was 114,709. Income for the year 1972-73 amounted to \$5,081,093. Total expenditure other than loan redemption and capital expenditure amounted to \$5,053,285.

Queensland

There are two controlling bodies responsible for fire fighting services throughout Queensland. The State Fire Services Council controls brigades set up under 'The Fire Brigades Act, 1964 to 1971,' and the Rural Fires Board under provisions of 'The Rural Fires Act, 1946 to 1970' administers bush fire brigades. In addition a local authority may establish a fire fighting brigade of its own as do some major establishments such as the State Forestry Department and private companies whose activities involve fire hazards.

Fire districts are constituted under 'The Fire Brigades Act, 1964 to 1971'. For each district, there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is borne by the State Government, the component local authorities and the contributory insurance companies and owners of property (which is insured with a company other than a contributory company) in the proportions of one-eighth each by the State Government and the component local authorities, and three-quarters by the contributory companies and owners of property referred to.

At 30 June 1973 there were 81 fire brigade boards. The number of stations was 190 and the brigade strength was 1,224 permanent staff and 1,285 auxiliary and 73 volunteer staff. The total revenue for the year 1972-73 was \$10,111,651 received mainly from the following sources: Government \$1,223,710, local authorities \$1,223,710, insurance companies \$7,330,836. Loan receipts (Government and other) were \$979,318. The total expenditure for the year was \$10,355,223, which included administration and working expenses, etc., \$8,787,554, interest and redemption \$1,227,118 and other expenditure \$340,551.

The Rural Fires Board, operating under the *Rural Fires Act 1946 to 1970*, consists of a chairman and nine members all of whom are appointed by the Governor-in-Council. Eight of the members are from Government Departments, the other represents the United Graziers Association. For administrative purposes the State is divided into Rural Fire Districts under the control of a Chief Fire Warden, and in these districts fire wardens are appointed to assigned areas. These officers control the issuing of permits, reporting of fire hazards and education in fire protection, while the bush fire brigades operate on a voluntary basis under the control of an appointed first officer. At 30 June 1973 there were 1,139 bush fire brigades. Expenditure by the State Government including contributions by bush fire brigades for equipment during 1972-73 amounted to \$158,603

South Australia

The Fire Brigades Act, 1936-1974 provides for a board of five members, that the expenses and maintenance of brigades are defrayed in the proportion of one-eighth by the Treasury, three-quarters by insurance companies and one-eighth by the municipalities concerned, and that when the Treasury proportion exceeds its statutory contribution of \$58,044, the excess is borne five-sevenths by insurance companies and two-sevenths by the municipalities. At 30 June 1973 there were altogether 39 fire brigade stations, of which 18 were metropolitan and 21 country.

The strength of the permanent staff at 30 June 1973 was 630, comprising 459 officers and men, 118 country auxiliary firemen and 53 other employees (including maintenance workers). The total revenue for the year 1972-73 was \$2,901,023, including contributions of \$2,866,945 made up as follows: insurance companies \$1,779,726, Treasury \$410,388 and municipalities \$676,831. The Treasury contribution includes a special grant of \$352,344.

Western Australia

The *Fire Brigades Act 1942-1947* provides for the constitution of fire districts which are under the control of the Western Australian Fire Brigades Board. There were 74 fire districts at 30 June 1973. The contribution to the Board is made in the proportion of 16 per cent from the State Government, 20 per cent from local government authorities, and 64 per cent from insurance companies. The number of local government authorities and insurance companies who contributed numbered 87 and 169 respectively. Seventeen permanent and two volunteer brigades operate in the metropolitan fire district centred in the City of Perth. Permanent brigade personnel serve with volunteer brigade personnel in five large country centres and volunteer brigades provide town fire protection at some 67 other centres. At 30 June 1973 the Board had 585 employees and there were 1,700 volunteer brigade officers and firemen. The revenue for the year ended 30 June 1973 was \$5,654,427 and the expenditure \$5,344,543.

Under the *Bush Fires Act, 1954-1970* a Bush Fires Board, consisting of thirteen members, six of whom are nominated by the Country Shire Councils' Association, was set up to advise the Minister for Lands on bush fire control and to administer the Bush Fires Act. The Act also provides for the registration of bush fire control officers, who numbered 2,442 at 30 June 1973, and the establishment of bush fire brigades, 918 at 30 June 1973. Many individual brigades are large organisations with numerous self-contained sections.

Tasmania

The *Fire Brigades Act 1945* provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of existing fire brigade boards, while leaving the responsibility for individual control and management with the boards. The Commission comprises the following: two persons nominated by the Minister; one person representing the City or Municipal Councils; one person nominated by the Chairman of the Rural Fires Board; and three persons representing the insurance companies. Contributions towards the cost of operations are on the basis of 22.5 per cent each from the Treasury and the municipalities and 55 per cent from the insurance companies concerned. The cost for the year 1972-73 amounted to \$1,807,061. There were, at 30 June 1973, 23 boards controlling 40 stations, and their aggregate staffs numbered 699 (officers and firemen), comprising 247 permanent personnel, 412 part-time firemen and 40 volunteers. The volunteers all operate under the Hobart Board in the forested and mountainous Fern Tree area.

Following the fire disaster of February 1967, amendments were made to the *Rural Fires Act 1950*. The 1967 Act brought the separate urban and rural fire services and the State Civil Defence and Emergency Services together under the Chief Secretary. The newly-constituted Rural Fires Board, under a chairman appointed by the Governor, consists of 16 members. The Board has a paid staff of 22, headed by the State Fire Control Officer and includes five regional fire officers and an assistant regional officer. At 30 June 1973 there were 314 rural fire brigades composed of 7,311 registered volunteers. The Board's budget in 1972-73 was \$436,500. Half the administrative expenditure is met by insurance companies insuring rural properties, and half by the Government. Special fire area expenditure is borne by the Government, with remaining expenditure being shared proportionately between the Government and municipalities.

Northern Territory

Under the Fire Brigade Ordinance fire brigades in the Northern Territory are under the control of the Administrator in Council. Regular fire stations are maintained for the urban areas of Darwin, Casuarina, Winnellie, Katherine, Tennant Creek and Alice Springs. There are volunteer stations at Batchelor, Adelaide River, Pine Creek, Mataranka and Larrimah. At 30 June 1974 the personnel strength of the regular stations was 114 full-time regulars, 18 part-time auxiliaries and 20 part-time volunteers.

Under the Bush Fire Control Ordinance 1965-1968 the regulation of fire-fighting in non-urban areas is the responsibility of a Bush Fire Council which has six regional fire control committees and receives executive assistance from the Forestry Section of the Department of Northern Australia. The Forestry Section also provides some equipment and actual fire-fighting assistance to rural land holders. The Bush Fire Council consists of private and government members and works closely together with the fire brigades.

Australian Capital Territory

The Canberra Fire Brigade is administered by the N.S.W. Board of Fire Commissioners under an agreement with the Australian Government. The cost of salaries, allowances, equipment and a 3 per cent administration charge to the Board is met by the Department of the Capital Territory.

At 31 December 1973 the 4 fire stations in Canberra employed a permanent fire fighting staff of 118. Expenditure during 1972-73 amounted to \$1,012,814, of which \$278,524 was a charge against the Canberra Municipal Account.

The responsibility for prevention and suppression of fires which occur outside the built-up areas of the A.C.T. and in Jervis Bay rests with the A.C.T. Bush Fire Council. In 1972-73, expenditure by the council amounted to \$144,658.

Patents, trade marks and designs

Patents

Patents for inventions are granted under the *Patents Act 1952-1973*, which applies to Australia and to the Territory of Norfolk Island. It also applies to Papua New Guinea until that Territory becomes independent. Regulations under the Act provide variable fees for lodgment of applications depending on size of specifications and number of claims. The basic fee for lodging an application and complete specification is \$20. Examination is no longer made automatically following lodgment of an application. The Commissioner may direct an applicant to request examination in which case the examination fee is \$60, or the applicant may request examination of his own accord, in which case the fee is \$80. If examination is not requested within six months after the Commissioner's direction or within five years after lodgment of a complete specification, the application lapses.

Continuation fees in respect of patent applications are payable commencing with a fee of \$8 on the expiration of the second year from the date of lodgment of the complete specification and rising to \$50 on the expiration of the fifteenth year from that date. Renewal fees in respect of patents are payable commencing with a fee of \$20 on the expiration of the fourth year from the date of the patent and rising to \$100 on the expiration of the fifteenth year from that date. Continuation fees cease to be payable when a patent has been sealed in respect of an application and renewal fees do not become payable until that time.

PATENTS: AUSTRALIA

	1969	1970	1971	1972	1973
Applications	17,446	16,443	16,407	16,165	16,460
Applications accompanied by provisional specifications	3,637	3,628	3,933	4,195	4,354
Letters patent sealed	7,127	6,130	10,641	10,920	11,670

Trade marks and designs

Under the *Trade Marks Act 1955-1973* the Commissioner of Patents is also Registrar of Trade Marks. Provision is made for the registration of users of trade marks and for their assignment with or without the goodwill of the business concerned. Under the *Designs Act 1906-1973* the Commissioner of Patents is also Registrar of Designs.

TRADE MARKS AND DESIGNS: AUSTRALIA

	1969	1970	1971	1972	1973
Trade marks—					
Received	9,246	9,117	8,866	9,204	10,026
Registered	4,809	5,823	5,710	5,012	5,665
Designs—					
Received	1,975	2,007	1,977	2,228	2,115
Registered	1,440	1,604	1,578	1,608	1,732

Copyright

Copyright is regulated by the Commonwealth *Copyright Act 1968*, which came into force on 1 May 1969. On that date Australia ratified its adherence to the Brussels revision of the Berne Copyright Convention and to the Universal Copyright Convention, whereby citizens of member countries are accorded protection by complying with the convention formality requiring proprietors to place on their works the symbol © together with their name and the year of first publication, in such a manner and location as to give reasonable notice of their claim of copyright in the works so identified. The new legislation contains no provision for the registration of copyright, and the Copyright Office ceased to exist on 1 May 1969. Copyright is now administered by the Attorney-General's Department.

CHAPTER 16

NATIONAL ACCOUNTS

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially of those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

Estimates of national income and expenditure have been compiled by the Bureau since 1944-45 and have been published annually as papers entitled *National Income and Expenditure* accompanying the Australian Government Budgets. Detailed annual estimates of national income and expenditure on a revised basis were published in *Australian National Accounts, National Income and Expenditure, 1972-73* (7.1). Preliminary estimates (less detailed) for 1972-73 were published earlier in a Budget Paper. Quarterly estimates are published in *Quarterly Estimates of National Income and Expenditure* (7.5). A supplement to the December quarter 1973 issue of *Quarterly Estimates of National Income and Expenditure* (7.10) presented historical quarterly series of gross domestic product and related aggregates at current and constant prices consistent with the 1972-73 Australian National Accounts bulletin.

More recently, the Bureau has been engaged in the compilation of input-output tables for the Australian economy. Preliminary tables for the year 1962-63 were published in February 1971 and the final results were published in *Australian National Accounts, Input-Output Tables 1962-63* (7.11) issued in May 1973.

The figures shown on pages 502-7 are as published in *Australian National Accounts, National Income and Expenditure, 1972-73*.

NATIONAL INCOME AND EXPENDITURE

Description of National Income and Expenditure Accounts

A brief description of the conceptual basis of national accounts is given in this section, but for a more detailed treatment of the concepts and structure of the Australian National Accounts reference should be made to *Australian National Accounts, National Income and Expenditure, 1972-73*.

Definition and relationship of the concepts of product, income and expenditure

The main concepts of product, income and expenditure in the Australian National Accounts are defined and expressed in equivalents as follows.

Gross domestic product is the total market value of goods and services produced in Australia within a given period after deduction of the cost of intermediate usage of goods and services but before deducting allowances for the consumption of fixed capital. Thus gross domestic product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services. *Gross farm product* is that part that of gross domestic product which derives from production in rural industries. *Gross non-farm product* arises from production in all other industries.

Gross domestic product at factor cost is that part of the cost of producing the gross domestic product which consists of gross payments to factors of production (labour, land, capital, and enterprise). It represents the value added by these factors in the process of production and is equivalent to gross domestic product less indirect taxes plus subsidies.

Domestic factor incomes is that part of the value added within a given period by factors of production (labour, land, capital and enterprise) which accrues as income to their suppliers after allowing for the depreciation of fixed capital. It is equivalent to gross domestic product at factor cost less depreciation allowances.

National income is the net income accruing within a given period to Australian residents from their services in supplying factors of production (labour, land, capital and enterprise) in Australia or overseas plus indirect taxes less subsidies. It is equivalent to domestic factor incomes plus indirect taxes less subsidies and net income paid overseas.

National disposable income is the net income accruing within a given period to Australian residents from their services in supplying factors of production, from net indirect taxes and from re-distributive transfers. It is equivalent to national income less net transfers overseas.

Gross national expenditure is the total expenditure within a given period on final goods and services (i.e. excluding goods and services used up during the period in the process of production) bought by Australian residents. It is equivalent to the gross domestic product plus imports of goods and services less exports of goods and services.

Household income is the total income whether in cash or kind, received by persons normally resident in Australia in return for productive activity (such as wages and supplements, incomes of unincorporated enterprises etc.) and transfer incomes (such as cash social service benefits, interest etc.). It includes the imputed interest of life offices and superannuation funds, which is the benefit accruing to policy holders and members from investment income of the funds. However, it excludes any income which might be said to accrue to persons in the form of undistributed company income. It also includes any property income received by non-profit organisations such as private schools, churches, charitable organisations, etc.

Framework of accounts and sectors

In the accounts shown in this Year Book four internal institutional sectors are distinguished—corporate trading enterprises (including public trading enterprises), financial enterprises (including the nominal industry), households (including their unincorporated enterprises) and general government. All of these internal sectors engage in production activity, receive and disburse income and accumulate assets. Without distinguishing between internal sectors, their transactions are summarised in three accounts, a domestic production account (Table 1), a national income and outlay account (Table 3) and a national capital account (Table 4). In addition there is an overseas sector having an account (Table 6) which shows a summary of the transactions into which overseas governments, persons and businesses enter with Australian residents. These four accounts form a system which though not detailed is complete in that, in principle, a credit in any account is matched by a debit in some other account. Income and outlay accounts are shown also for each of the four domestic sectors. The national income and outlay account is a consolidation of the income and outlay accounts of the four domestic sectors. The sector income and outlay accounts can together take the place of the national income and outlay account to provide a more detailed system.

The framework of sectors and accounts underlying the form of social accounts shown in this publication is set out in the following diagram. The heavy rectangles depict the minimum system of

ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS

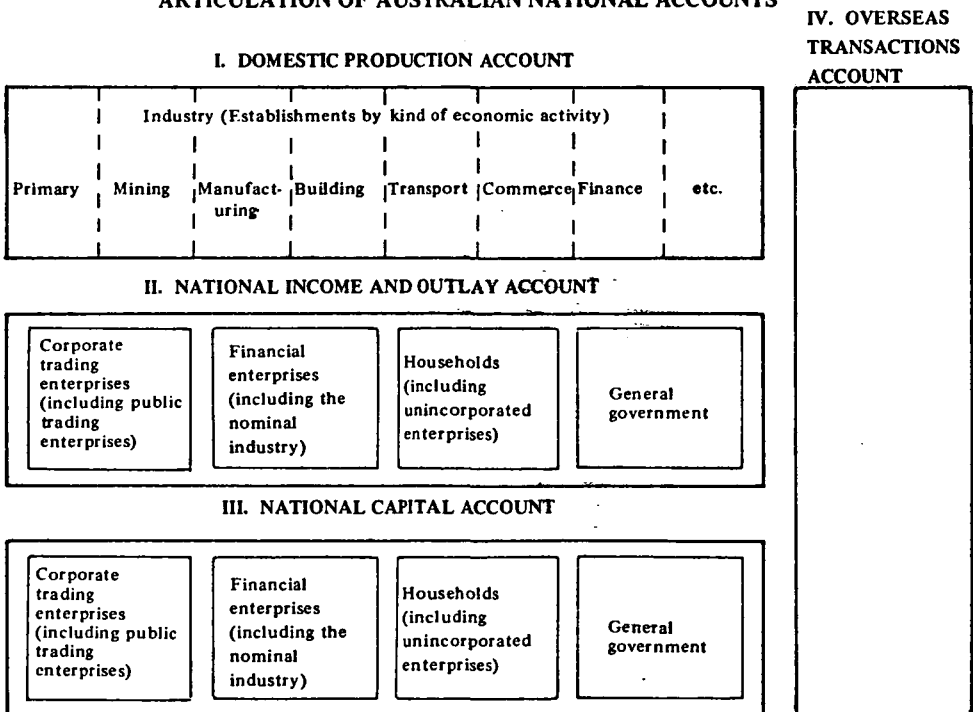


PLATE 36

four accounts which represent the consolidated accounts of the nation. The light rectangles represent the accounts for institutional sectors. The sector income and outlay accounts are shown in this Year Book. The sector capital accounts are published in *Australian National Accounts, National Income and Expenditure, 1972-73* (Reference 7.1). The sub-division of the domestic production account represents production accounts for establishments classified according to industry. Selected transactions from such production accounts are shown in Reference 7.1 mentioned above, and such production accounts can be developed in detail to produce input-output accounts.

Description of the accounts

The *domestic production account* is a consolidation of the production accounts of all producers regardless of sector. The production account is shown as receiving revenue from the sale of goods and services to final buyers; all intermediate goods and services are cancelled out, since they represent a cost to one producer to offset the revenue of the other. On the payments side are shown the payments of indirect taxes less subsidies, and, since the account is presented from the point of view of the producing unit, the wages and salaries paid to employees. The balance is the gross operating surplus which may be divided into depreciation allowances and net operating surplus. Depreciation allowances is carried to the national capital account (or the sector capital accounts) and net operating surplus, together with wages and salaries and indirect taxes less subsidies, is carried to the national income and outlay account (or sector income and outlay accounts). In input-output tables, the domestic production account is broken up into accounts for separate industries, and transactions associated with intermediate usage of goods and services are shown in the production accounts for the separate industries.

The *national income and outlay account* is shown as receiving wages, salaries and supplements, net operating surplus and indirect taxes less subsidies from the domestic production account. From this income are deducted net payments of income and miscellaneous transfers to overseas, and the remainder is the national disposable income. The outlay side of the account shows this disposable income is largely used for final consumption expenditure and the balance is the nation's saving. The national income and outlay account is a consolidation of the sector income and outlay accounts.

The *national capital account* is a consolidation of the sector capital accounts. It shows on the receipts side depreciation allowances transferred from the domestic production account and saving transferred from the national income and outlay account (or from the sector income and outlay accounts). On the payments side are shown purchases by all sectors of new buildings and capital equipment, the increase in stocks of all sectors and a balance described as net lending to overseas. This concept of net lending to overseas includes increases (and, negatively, decreases) in Australia's overseas monetary reserves. The net lending to overseas is also the balance on current transactions in the overseas transactions account.

The *overseas transactions account* records all transactions of a current nature between Australian and overseas residents. Although this is an account for the overseas sector, the items are named from the Australian viewpoint. The account shows that Australia's current receipts from overseas consist of the value of (Australia's) exports of goods and services, property income received from overseas and transfers from overseas. These receipts are used for (Australia's) imports of goods and services and payments of property income and transfers to overseas; and the balance of current receipts represents net lending to overseas. Positive net lending to overseas corresponds to a surplus on current transactions with overseas and negative net lending corresponds to a deficit. The transactions in property income shown in this account differ from estimates shown in balance of payments statistics because in the national accounts undistributed company income is not imputed to the beneficial owners. For this reason, also, net lending to overseas differs from the balance on current account shown in balance of payments statistics.

The *corporate trading enterprises (including public trading enterprises) income and outlay account* is shown as receiving the net operating surpluses of trading enterprise companies and public trading enterprises from the domestic production account and property income (interest, etc. and dividends) from other sectors. This total of receipts is appropriated to various transfer payments (interest, etc. paid, income tax payable, dividends paid, and public enterprise income) and undistributed income which is the saving of the sector. Public trading enterprises are not shown to have any saving. Public enterprise income is here measured by the net operating surplus and the whole amount is transferred to the general government income and outlay account. Also, as property income received and paid by public trading enterprises have not been distinguished from property income received and paid by general government, the interest and dividends shown in this account are only those received and paid by companies.

The *financial enterprises (including the nominal industry) income and outlay account* is shown receiving net operating surplus from the domestic production account and property income from

other sectors. This total of receipts is appropriated to various transfer payments (interest, etc., income tax and dividends) and the saving of the sector consisting of retained income of public financial enterprises and undistributed income of companies. The disbursements shown for the sector include interest on life and superannuation funds imputed to households. This represents earnings accumulated for policy holders and members and is shown as paid to the household income and outlay account where it contributes to household saving.

The *households (including unincorporated enterprises) income and outlay account* is shown receiving net operating surplus from the domestic production account in respect of unincorporated enterprises and dwellings owned by persons. In order to show the net income from these activities, related interest payments (which could be shown on the disbursements side) are here shown as a deduction from net operating surplus. Wages, salaries and supplements is also received from the domestic production account. In addition to these primary incomes, transfer incomes are received from other sectors (interest, etc., dividends, cash benefits from general government and transfers from overseas). On the disbursements side are shown payments for goods and services for final consumption and transfer payments (consumer debt interest, taxes and transfers overseas). The balance is the saving of the sector which is transferred to the sector capital account.

Household income includes interest on life and superannuation funds but not pensions received from superannuation funds nor claims on life insurance policies. These are treated as capital transactions involving only the exchange of one asset (equity in life insurance and superannuation funds) for another (cash). However, age and invalid pensions paid by general government are included in household income.

Estate and gift duties are treated as current receipts by general government and also as current payments by persons even though the individual payers may regard them as of a capital nature. All personal gifts and transfers to or from overseas are also treated as current. Personal transfers to and from overseas include such items as legacies and migrants' funds, which the persons concerned may think of as of a capital nature.

Net current expenditure on goods and services by non-profit organisations serving persons is included in private final consumption expenditure. Expenditure on buildings (e.g. churches, private schools, clubs) is treated as capital expenditure and excluded from this account.

The *general government income and outlay account* reflects a distinction between current and capital expenditure, which is necessarily arbitrary in some measure and has been made on the basis of excluding from current outlay expenditure on public works and increase in stocks. Expenditure on public works is taken to include new buildings, construction, plant and machinery and any replacement of assets charged to loan funds or capital works votes. Current outlay excludes all expenditure on roads, because a satisfactory distinction between new works and maintenance cannot be made. All defence expenditure is included in current outlay.

The income from public enterprises shown in this account consists of the income actually transferred to general government by public financial enterprises, and the whole of the income of public trading enterprises as measured by their net operating surplus. The net operating surplus of public trading enterprises is derived by deducting from their gross operating surplus any depreciation shown by these enterprises in their published accounts, except in the case of enterprises which are at present analysed on the basis of cash accounts in which depreciation is not allowed (usually enterprises whose accounts are included in Australian Government or State public accounts). As in the case of households, all overseas gifts are included in the income and outlay account. These include gifts for international relief, technical assistance, etc., grants, contributions to international organisations and expenditure in connection with the administration of Papua New Guinea.

Estimates at constant prices

For certain types of economic analysis it is useful to examine estimates of the principal flows of goods and services in the economy revalued in such a way as to remove the direct effects of changes in their prices which have occurred over the period under review. Such estimates, conventionally described as 'at constant prices', are presented in Tables 2 and 5 for gross domestic product, exports and imports of goods and services, and gross national expenditure and its principal components.

In concept, constant price estimates may be thought of as being derived by expressing the value of every component commodity as the product of a price and a quantity, and by substituting for each actual current price the corresponding price in the chosen base year. Aggregates at constant prices for each year are then obtained by summation. In practice, the quality and quantity of the available data are such that a number of other methods are used in the preparation of estimates at constant prices. These estimates involve approximations and assumptions, and this should be borne in mind in the interpretation and use of the results.

Gross domestic product is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services. This relationship has been used in deriving the estimates of gross domestic product at constant prices shown in Table 2. Their sub-division into gross farm product and gross non-farm product has been estimated by deriving gross farm product by the production method (revaluing farm output and farm usage of intermediate goods and services to obtain gross farm product as the difference) and deducting this from total gross domestic product to obtain gross non-farm product.

For a considerable part of private final consumption expenditure and exports and imports of goods and services, it is possible to identify specific units of quantity and price, and revalue the quantities at base year prices. Where it is not possible to express the values in successive years as the product of prices and homogeneous units of quantity, the treatment generally adopted is to divide values by appropriate price indexes.

With the remaining components of gross national expenditure, a greater degree of approximation and assumption is involved. For example, when information about the commodity content of a flow is limited (e.g. various components of gross fixed capital expenditure), special purpose price indexes relating to selected commodities are applied to the expenditure on the full range of commodities they represent. In other cases, for instance, where the expenditure relates to 'unique' goods (e.g. goods not homogeneous from year to year), revaluation is achieved by use of an index reflecting the price change of the direct materials and direct labour components of the unique goods in question. This method of revaluation is also applied to government final consumption expenditure. The resulting estimates have, therefore, considerable limitations for many uses, for example in studies of productivity.

The method used to estimate the increase in stocks involves first reducing the increase in book values of stocks by an estimate of the stock valuation adjustment to obtain the measures at current prices, and then revaluing the latter to arrive at the estimates at constant prices. The stock valuation adjustment has to be made because existing stocks are sometimes explicitly revalued (for example, such revaluations are sometimes made by business enterprises so as to show stocks at the lower of cost or market value for balance sheet purposes) or more commonly, because stocks used or disposed of are replaced by new stocks of the same goods but at different prices.

Part 1 of *Australian National Accounts, National Income and Expenditure, 1972-73* contains a fuller discussion of the conceptual problems involved in making these estimates and Appendix B of that publication contains a brief account of the sources and methods used in preparing the estimates.

Reliability and revisions

Estimates of national income and expenditure are necessarily prepared from a very wide range of statistical information, some of which is available quickly, some of it only with a delay of several years after the period to which it relates. Some of it is closely related to the desired national income concepts, but some of it is not completely satisfactory in various respects, including coverage, concepts and timing. Estimates, in particular for the most recent years, are therefore subject to revision.

This applies particularly to estimates based on income tax statistics—income of companies, non-farm unincorporated enterprises, depreciation, and part of gross private fixed investment—which are subject to substantial revisions for the last two years, as tabulations of income tax statistics do not become available until about twenty-two months after the end of each financial year.

It is not possible to put precise limits on the degree of revision likely to any particular series, nor to state degrees of reliability in a statistical sense. These depend in large part on the range and quality of the basic statistical data. For illustrations of common causes of revisions reference should be made to *Australian National Accounts, National Income and Expenditure, 1972-73*.

National income and expenditure tables

(For explanatory note on item numbers see Note following Table 3.)

TABLE 1
DOMESTIC PRODUCTION ACCOUNT
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
Final consumption expenditure—					
1 Private	16,220	17,791	19,540	21,579	24,052
2 Government	3,360	3,673	4,235	4,802	5,524
Gross fixed capital expenditure—					
3 Private	4,688	5,208	5,822	6,128	6,189
4 Public enterprises	1,359	1,484	1,517	1,741	1,743
5 General Government	1,172	1,257	1,392	1,526	1,721
6 Increase in stocks	668	495	352	-115	-250
7 Statistical discrepancy	-120	-168	-131	138	422
<i>Gross national expenditure</i>	<i>27,347</i>	<i>29,740</i>	<i>32,727</i>	<i>35,799</i>	<i>39,401</i>
8 Exports of goods and services	3,901	4,757	5,052	5,627	6,915
9 Less Imports of goods and services	4,276	4,764	5,123	5,224	5,333
Expenditure on gross domestic product	26,972	29,733	32,656	36,202	40,983
10 Wages, salaries and supplements	14,028	15,735	18,056	20,241	22,518
Gross operating surplus—					
Trading enterprises—					
11a Companies	3,982	4,477	4,523	4,727	5,379
11b Unincorporated enterprises	4,135	4,157	4,185	4,621	5,680
11c Dwellings owned by persons	1,277	1,453	1,692	1,909	2,146
11d Public enterprises	943	1,055	1,045	1,179	1,180
11e Financial enterprises	426	474	568	650	808
11f Less Imputed bank service charge	569	648	729	831	997
<i>Gross domestic product at factor cost</i>	<i>24,222</i>	<i>26,703</i>	<i>29,340</i>	<i>32,496</i>	<i>36,714</i>
12 Indirect taxes less subsidies	2,750	3,030	3,316	3,706	4,269
Gross domestic product	26,972	29,733	32,656	36,202	40,983
Gross farm product	2,333	2,182	2,002	2,226	3,084
Gross non-farm product	24,639	27,551	30,654	33,976	37,899

TABLE 2
EXPENDITURE ON GROSS DOMESTIC PRODUCT AT AVERAGE 1966-67 PRICES
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
Final consumption expenditure—					
Private	15,280	16,163	16,765	17,437	18,459
Government	3,054	3,123	3,256	3,305	3,493
Gross fixed capital expenditure—					
Private	4,417	4,716	4,963	4,877	4,655
Public	2,354	2,433	2,438	2,571	2,523
Increase in stocks	703	480	356	-142	-229
Statistical discrepancy	-108	-142	-101	122	336
<i>Gross national expenditure</i>	<i>25,700</i>	<i>26,772</i>	<i>27,676</i>	<i>28,170</i>	<i>29,236</i>
Exports of goods and services	3,960	4,723	5,123	5,536	5,792
Less Imports of goods and services	4,271	4,709	4,871	4,761	4,970
Expenditure on gross domestic product	25,389	26,786	27,928	28,944	30,058
Gross farm product	2,644	2,550	2,555	2,730	2,449
Gross non-farm product	22,745	24,235	25,373	26,214	27,609

TABLE 3
NATIONAL INCOME AND OUTLAY ACCOUNT
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
10 Wages, salaries and supplements	14,028	15,735	18,056	20,241	22,518
11g Net operating surplus	7,763	8,321	8,435	9,167	10,877
<i>Domestic factor incomes</i>	21,791	24,056	26,491	29,408	33,395
13 Less Net income paid overseas	305	387	392	391	415
12a Indirect taxes	2,973	3,292	3,594	4,080	4,583
12b Less Subsidies	223	262	278	374	314
<i>National income</i>	24,236	26,699	29,415	32,723	37,249
14 Less Net transfers to overseas	83	107	138	152	227
<i>National disposable income</i>	24,153	26,592	29,277	32,571	37,022
Final consumption expenditure—					
1 Private	16,220	17,791	19,540	21,579	24,052
2 Government	3,360	3,673	4,235	4,802	5,524
15 } Saving	4,573	5,128	5,502	6,190	7,446
20 } Disposal of income	24,153	26,592	29,277	32,571	37,022

NOTE. Items in all current price tables are numbered from 1 to 24, with or without the addition of a letter, and this system is used to identify the corresponding credit and debit entries in the accounts and as a key to the notes on pages 508-11. In some cases the items correspond exactly, while in other cases an entry in one table is the sum of two or more entries in other tables; here the total is given a number, and the components have a number and a letter. In the remaining type of case all entries are given the same number and a distinguishing letter, because in this group one item is not the sum of one or more entries. The relationship between these items can still be traced through because the sum of all credit entries must equal the sum of all debit entries.

TABLE 4
NATIONAL CAPITAL ACCOUNT
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
11h Depreciation allowances	2,431	2,647	2,849	3,088	3,319
Saving—					
15 Increase in income tax provisions	205	292	15	135	211
16 Undistributed (company) income	903	872	710	626	819
17 Retained income of public financial enterprises	82	85	103	105	181
18 Household saving	1,715	1,772	2,463	2,859	4,138
19 General government surplus on current transactions	1,621	2,054	2,159	2,411	2,028
20 General government grants for private capital purposes	47	53	52	54	69
<i>Finance of gross accumulation</i>	7,004	7,775	8,351	9,278	10,765
Gross fixed capital expenditure—					
Private—					
3a Dwellings	1,299	1,489	1,538	1,756	2,078
3b Other building and construction	1,014	1,119	1,394	1,457	1,361
3c All other	2,375	2,600	2,890	2,915	2,750
4 Public enterprises	1,359	1,484	1,517	1,741	1,743
5 General government	1,172	1,257	1,392	1,526	1,721
<i>Total gross fixed capital expenditure</i>	7,219	7,949	8,731	9,395	9,653
Increase in stocks—					
6a Farm	348	78	-111	-133	-214
6b Non-farm	320	417	463	18	-36
7 Statistical discrepancy	-120	-168	-131	138	422
21 Net lending to overseas	-763	-501	-601	-140	940
<i>Gross accumulation</i>	7,004	7,775	8,351	9,278	10,765

TABLE 5
GROSS FIXED CAPITAL EXPENDITURE AND INCREASE IN STOCKS AT
AVERAGE 1966-67 PRICES
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
Gross fixed capital expenditure—					
Private—					
Dwellings	1,226	1,352	1,332	1,415	1,545
Other building and construction	942	994	1,164	1,133	991
All other	2,249	2,370	2,467	2,329	2,119
<i>Total private</i>	<i>4,417</i>	<i>4,716</i>	<i>4,963</i>	<i>4,877</i>	<i>4,655</i>
Public	2,354	2,433	2,438	2,571	2,523
Total	6,771	7,149	7,401	7,448	7,178
Increase in stocks—					
Farm	310	414	477	-31	-98
Non-farm	394	66	-121	-111	-131
Total	703	480	356	-142	-229

TABLE 6
OVERSEAS TRANSACTIONS ACCOUNT
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
9a Imports f.o.b.	3,203	3,553	3,790	3,791	3,797
9b Transportation	699	754	837	833	876
9c Travel	157	186	199	266	316
9d Government transactions	111	124	127	124	122
9e Other goods and services	106	147	170	210	222
<i>9 Imports of goods and services</i>	<i>4,276</i>	<i>4,764</i>	<i>5,123</i>	<i>5,224</i>	<i>5,333</i>
13a Property income to overseas	435	518	543	596	718
14a Personal transfers overseas	92	114	134	172	210
14b General government transfers overseas	159	179	185	206	252
21 Net lending to overseas	-763	-501	-601	-140	940
Use of current receipts	4,199	5,074	5,384	6,058	7,453
8a Exports f.o.b.	3,217	3,969	4,216	4,729	5,990
8b Transportation	392	445	469	496	553
8c Travel	107	120	136	139	132
8d Government transactions	80	87	82	90	91
8e Other goods and services	105	136	149	173	149
<i>8 Exports of goods and services</i>	<i>3,901</i>	<i>4,757</i>	<i>5,052</i>	<i>5,627</i>	<i>6,915</i>
13b Property income from overseas	130	131	151	205	303
14c Personal transfers from overseas	168	186	181	226	235
Current receipts from overseas	4,199	5,074	5,384	6,058	7,453

TABLE 7
CORPORATE TRADING ENTERPRISES (INCLUDING PUBLIC TRADING ENTERPRISES)
INCOME AND OUTLAY ACCOUNT
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
Net operating surplus—					
11i Trading enterprise companies	2,904	3,297	3,226	3,304	3,834
11j Public trading enterprises	576	641	619	712	681
13c Interest, etc. received	167	194	228	253	289
13d Dividends received	67	69	71	80	87
Receipts	3,714	4,201	4,144	4,349	4,891
13e Interest etc. paid	550	656	781	869	982
22a Public enterprise income	576	641	619	712	681
Company income—					
15a Income tax payable	1,081	1,350	1,362	1,439	n.a.
13f Dividends paid	720	801	827	879	n.a.
16a Undistributed income	787	753	555	450	n.a.
	2,588	2,904	2,744	2,768	3,228
Disbursements	3,714	4,201	4,144	4,349	4,891

TABLE 8
FINANCIAL ENTERPRISES (INCLUDING THE NOMINAL INDUSTRY) INCOME AND
OUTLAY ACCOUNT
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
11k Net Operating Surplus	366	397	471	533	669
11f Less imputed bank service charge	569	648	729	831	997
13g Interest etc. received	1,551	1,769	2,072	2,389	2,837
13h Dividends received	87	99	107	122	131
Receipts	1,435	1,617	1,921	2,213	2,640
13i Interest on life and superannuation funds imputed to households	427	474	536	616	711
13j Other interest etc. paid	594	698	851	1,006	1,210
15b Income tax on life and superannuation funds Public enterprise income—	16	18	19	21	22
22b Paid to general government	36	37	57	63	38
17 Retained income	82	85	103	105	181
	118	122	160	168	219
Company income—					
15c Income tax payable	89	105	114	131	n.a.
13k Dividends paid	75	81	86	95	n.a.
16b Undistributed income	116	119	155	176	n.a.
	280	305	355	402	478
Disbursements	1,435	1,617	1,921	2,213	2,640

TABLE 9
HOUSEHOLD (INCLUDING UNINCORPORATED ENTERPRISES) INCOME AND
OUTLAY ACCOUNT
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
Net operating surplus—					
11/ Dwellings owned by persons	1,054	1,209	1,424	1,610	1,818
11m Unincorporated enterprises	3,432	3,425	3,424	3,839	4,872
13/ Less Interest, etc., paid relating thereto	690	803	918	1,033	1,188
Income from unincorporated enterprises and dwellings owned by persons					
10 Wages, salaries and supplements	14,028	15,735	18,056	20,241	22,518
13i Interest on life and superannuation funds (imputed)	427	474	536	616	711
13m Other interest, etc., received	659	753	854	958	1,108
13n Dividends received	479	505	519	546	564
23 Cash benefits from general government	1,432	1,630	1,810	2,113	2,623
14c Transfers from overseas	168	186	181	226	235
Receipts	20,989	23,114	25,886	29,116	33,261
1 Private final consumption expenditure	16,220	17,791	19,540	21,579	24,052
13o Consumer debt interest	167	185	218	239	281
15d Income tax payable	2,427	2,861	3,123	3,828	4,094
24 Other direct taxes, fees, fines, etc.	368	391	408	439	486
14a Transfers overseas	92	114	134	172	210
18 Saving	1,715	1,772	2,463	2,859	4,138
Disbursements	20,989	23,114	25,886	29,116	33,261

TABLE 10
GENERAL GOVERNMENT INCOME AND OUTLAY ACCOUNT
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
22 Income from public enterprises	612	678	676	775	719
13p Interest, etc., received	184	215	261	277	311
12a Indirect taxes	2,973	3,292	3,594	4,080	4,583
15 Direct taxes on income	3,408	4,042	4,603	5,284	5,701
24 Other direct taxes, fees, fines, etc.	368	391	408	439	486
Receipts	7,545	8,618	9,542	10,855	11,800
2 Final consumption expenditure	3,360	3,673	4,235	4,802	5,524
12b Subsidies	223	262	278	374	314
13q Interest, etc., paid	703	767	823	895	990
23 Cash benefits to persons	1,432	1,630	1,810	2,113	2,623
20 Grants for private capital purposes	47	53	52	54	69
14b Transfers overseas	159	179	185	206	252
19 Surplus on current transactions	1,621	2,054	2,159	2,411	2,028
Disbursements	7,545	8,618	9,542	10,855	11,800

TABLE 11
 MAIN AGGREGATES AT CURRENT PRICES, 1948-49 TO 1972-73
 (\$ million)

Year	1		2	3	4	5	6	7
	Final consumption expenditure		Private gross fixed capital expenditure	Public gross fixed capital expenditure	Increase in stocks	Statistical discrepancy	Gross national expenditure	(1 to 6)
	Private	Government						
1948-49	3,001	354	497	295	37	-32	4,152	
1949-50	3,457	426	644	420	72	27	5,046	
1950-51	4,209	588	921	603	144	-64	6,401	
1951-52	5,017	806	1,132	806	384	66	8,211	
1952-53	5,326	929	1,143	794	-256	-246	7,690	
1953-54	5,849	878	1,320	808	66	-113	8,808	
1954-55	6,362	941	1,482	871	173	35	9,864	
1955-56	6,839	1,049	1,640	927	208	-62	10,601	
1956-57	7,312	1,093	1,717	950	-46	-167	10,859	
1957-58	7,666	1,131	1,858	998	14	-20	11,647	
1958-59	8,069	1,233	1,922	1,100	277	-84	12,517	
1959-60	8,853	1,323	2,191	1,214	152	89	13,822	
1960-61	9,391	1,422	2,415	1,256	480	17	14,981	
1961-62	9,676	1,543	2,328	1,402	-218	-115	14,616	
1962-63	10,372	1,652	2,580	1,443	260	-110	16,197	
1963-64	11,193	1,804	2,919	1,595	125	-125	17,511	
1964-65	12,110	2,066	3,410	1,850	569	-6	19,999	
1965-66	12,858	2,407	3,656	2,053	117	-103	20,988	
1966-67	13,835	2,725	3,829	2,164	360	-153	22,760	
1967-68	15,067	3,076	4,156	2,367	128	-176	24,618	
1968-69	16,220	3,360	4,688	2,531	668	-120	27,347	
1969-70	17,791	3,673	5,208	2,741	495	-168	29,740	
1970-71	19,540	4,235	5,822	2,909	352	-131	32,727	
1971-72	21,579	4,802	6,128	3,267	-115	138	35,799	
1972-73	24,052	5,524	6,189	3,464	-250	422	39,401	

Year	8	9	10	11	12	13	14
	Exports of goods and services	Imports of goods and services	Gross domestic product	Gross domestic product at factor cost	National income	Household income	Wages, salaries and supplements
1948-49	1,146	979	4,319	3,890	4,033	3,773	2,169
1949-50	1,307	1,260	5,093	4,588	4,691	4,421	2,471
1950-51	2,092	1,726	6,767	6,194	6,278	6,064	3,112
1951-52	1,486	2,437	7,260	6,446	6,848	6,288	3,938
1952-53	1,855	1,312	8,233	7,443	7,741	7,035	4,259
1953-54	1,793	1,601	9,000	8,105	8,406	7,362	4,538
1954-55	1,707	1,983	9,588	8,608	8,894	7,880	4,968
1955-56	1,740	1,953	10,388	9,325	9,596	8,553	5,449
1956-57	2,190	1,736	11,313	10,116	10,453	9,137	5,764
1957-58	1,847	1,925	11,569	10,272	10,527	9,141	5,987
1958-59	1,868	1,960	12,425	11,077	11,283	9,838	6,281
1959-60	2,150	2,286	13,686	12,211	12,440	10,805	6,970
1960-61	2,175	2,603	14,553	12,982	13,190	11,610	7,509
1961-62	2,470	2,205	14,881	13,335	13,442	12,015	7,732
1962-63	2,494	2,620	16,071	14,416	14,525	12,797	8,161
1963-64	3,163	2,873	17,801	16,015	16,096	14,149	8,875
1964-65	3,049	3,485	19,563	17,590	17,685	15,442	9,919
1965-66	3,138	3,629	20,497	18,344	18,440	16,192	10,687
1966-67	3,487	3,711	22,536	20,252	20,268	17,899	11,658
1967-68	3,568	4,155	24,031	21,537	21,531	18,750	12,678
1968-69	3,901	4,276	26,972	24,222	24,236	20,989	14,028
1969-70	4,757	4,764	29,733	26,703	26,699	23,114	15,735
1970-71	5,052	5,123	32,656	29,340	29,415	25,886	18,056
1971-72	5,627	5,224	36,202	32,496	32,723	29,116	20,241
1972-73	6,915	5,333	40,983	36,714	37,249	33,261	22,518

Description of items in the National Income and Expenditure Accounts

Item 1. Final consumption expenditure—private. Net expenditure on goods and services of consumption by persons and private non-profit organisations serving households. This item excludes the purchase of dwellings and capital expenditure by non-profit organisations (included in item 3), and maintenance of dwellings (treated as expenses of private enterprises), but includes personal expenditure on motor vehicles and other durable goods and the imputed rent of owner-occupied dwellings. Purchase of motor vehicles is the estimated expenditure by persons on new motor vehicles, second-hand motor vehicles purchased from business enterprises and general government, and net dealers' margins on purchases and sales of motor vehicles between persons. Motor vehicles include cars, station wagons, motor cycles, and motor scooters bought for personal use. The value of income in kind (e.g. food produced and consumed on farms, board and lodging provided free to employees) is included in both household income and private final consumption expenditure, but goods chargeable to business (expense) accounts are excluded.

Item 2. Final consumption expenditure—government. Expenditure by public authorities (other than those classified as public enterprises) which does not result in the creation of fixed tangible assets or in the acquisition of land, buildings or second-hand goods. It comprises expenditure on wages, salaries, and supplements, and on goods and services other than fixed assets and stocks. Fees, etc., charged by general government for goods sold and services rendered are offset against purchases. Net expenditure overseas by general government and purchases from public enterprises are included. All government expenditure on defence is classified as final consumption expenditure.

Item 3. Gross fixed capital expenditure—private. Expenditure on fixed assets whether for additions or replacements. This item includes expenditure on dwellings (item 3a), other building and construction (item 3b), and vehicles, plant machinery, etc. (item 3c). It includes also expenditure on second-hand assets as well as new assets, less sales of existing assets. Expenditure on ordinary repair and maintenance of fixed assets is excluded as being chargeable to current account. Major additions are, however, regarded as capital expenditure. Dwellings purchased by persons from public housing authorities, including previously rented houses, are included in private capital expenditure. Net purchases of other land and buildings are not included.

Item 4. Gross fixed capital expenditure—public enterprises. Expenditure on new fixed assets whether for additions or replacements, including wages and salaries paid by public enterprises in connection with capital works. Expenditure on houses and flats is estimated by deducting the cost of previously rented dwellings sold to the private sector from the estimated expenditure on construction of dwellings. The sales value of these previously rented dwellings is included in private capital expenditure.

Item 5. Gross fixed capital expenditure—general government. Expenditure on new fixed assets whether for additions or replacements, other than for defence purposes. Because it has not been possible to make a satisfactory dissection, all expenditure on roads, including maintenance, is classified as fixed capital expenditure.

Item 6. Increase in stocks. The increase in stocks of enterprises and general government. The increase in stocks is calculated on a quarterly basis as the difference between the beginning and end-of-quarter estimates of stock levels, both revalued at average current-quarter prices by means of appropriate price indexes.

Item 7. Statistical discrepancy. The difference between the sum of the direct estimates of gross domestic product and imports of goods and services on the one hand and the sum of the estimates of components of gross national expenditure and exports of goods and services on the other hand. Conceptually these two totals are the same. Inclusion of the discrepancy on the expenditure side of the domestic production account implies nothing as to the relative accuracy of the estimates of gross domestic product and national expenditure. Similarly its inclusion in the capital account does not imply that estimates in this table are less accurate than those in other tables, or that capital expenditure estimates are less accurate than estimates on the receipts side of this account.

Item 8. Exports of goods and services. The value of goods exported overseas and receipts from overseas for other goods and services. In table 6 this item is sub-divided into the following components.

Item 8a. Exports f.o.b. The recorded trade figures adjusted for balance of payments purposes. The adjustments are similar to those made to the recorded import figures except that no change is made to the basis of valuation.

Item 8b. Transportation (receipts). The expenditure of overseas carriers in Australian ports, the overseas earnings of Australian shipping and airline operators in respect of passenger fares, and their earnings from freight on exports from Australia, carriage goods between foreign ports, etc.

Item 8c. Travel (receipts). Expenditure in Australia of persons visiting for pleasure or business, including expenditure in Australia of students studying under the Colombo Plan.

Item 8d. Government transactions (receipts). Includes receipts for services rendered by the Australian government to other governments and international organisations, including services provided under joint defence projects and payments in Australia by foreign governments on diplomatic, consular and trade representation and for pensions.

Item 8e. Other goods and services (receipts). The value of Australian production of gold (including recoveries from scrap) less net industrial usage, business expenses of overseas firms in Australia, and commissions, brokerage, etc.

Item 9. Imports of goods and services. The value of goods imported from overseas and amounts payable overseas for services. In table 6 this item is sub-divided into the following components.

Item 9a. Imports f.o.b. Recorded trade figures adjusted for the purpose of balance of payments estimates. The principal adjustments are the deduction of a 'valuation adjustment' representing the excess of the recorded value of imports (based on value for duty) over the estimated selling price to the importer as shown on invoices accompanying customs entries, the addition of unrecorded imports including ships and aircraft for use on overseas routes, and the subtraction of films imported on a rental basis, imports of gold, passengers' personal effects, goods for repair and goods intended for re-export.

Item 9b. Transportation (payments). Freight payable to foreign carriers on goods imported into Australia and transported between Australian ports and fares payable in Australia to overseas shipping and airline companies. It also includes the overseas expenditure of Australian ships and aircraft, and net marine insurance payable overseas in respect of both exports and imports.

Item 9c. Travel (payments). Expenditure in other countries by Australians visiting overseas for pleasure or business.

Item 9d. Government transactions (payments). Expenditure overseas for defence, including the pay and allowances of personnel serving overseas, expenditure overseas on diplomatic, consular and trade representation, government pensions paid abroad, administrative expenditure overseas on immigration, and other miscellaneous payments for services.

Item 9e. Other goods and services (payments). Administrative and promotional expenditure overseas by Australian firms, cinema and television film rentals and commissions, brokerage, etc. payable overseas, and the value of repairs on goods previously exported for repair and return.

Item 10. Wages, salaries and supplements. Payments by producers to their employees in the nature of wages and salaries as defined for pay-roll tax, including allowances for income in kind (board and quarters, etc.), together with supplements to wages, and pay and allowances of members of the forces. Employees cover all persons engaged in the activities of incorporated business units and in the production of government services and services of non-prof. organisations, members of the armed forces, and all persons engaged in the activities of unincorporated enterprises except the proprietors and unpaid members of the family. In addition to wages and salaries paid by employers subject to pay-roll tax, this item includes wages and salaries paid by employers not subject to pay-roll tax, based on estimates of employment and average earnings. Supplements consist of employers' contributions to pension and superannuation funds, direct payments of pensions and retiring allowances, and amounts paid as workers' compensation for injuries. Pay and allowances of members of the forces consist of active pay, field, subsistence and dependants' allowances, and the value to the members of the forces of food, clothing, normal medical attention, etc. supplied in kind. They include deferred pay, but exclude war gratuities which are included in item 23.

Item 11. Gross operating surplus. The operating surplus, before deduction of depreciation provisions dividends, interest, royalties and land rent, and direct taxes payable, but after deducting stock valuation adjustment, of all enterprises, trading and financial, from operations in Australia. It is the excess of gross output over the sum of intermediate consumption, wages, salaries and supplements, and indirect taxes less subsidies. Trading enterprises include all companies, public enterprises, partnerships and self-employed persons engaged in the production of goods and services for sale, but exclude financial enterprises. Public trading enterprises are government undertakings which attempt to recover all, or a substantial part, of their costs through charges made to the public for the sale of goods and services. All owners of dwellings are included whether they let the dwellings or occupy them themselves. Trading enterprises' gross operating surplus is shown separately for companies (item 11a), unincorporated enterprises (item 11b), dwellings owned by persons (item 11c), and public enterprises (item 11d). Financial enterprises comprise banks, insurance offices, superannuation funds and other enterprises primarily engaged in incurring liabilities and acquiring financial assets

in the market. The gross operating surplus of financial enterprises (item 11e) includes an imputed bank service charge which represents a reclassification of a part of interest receipts. The imputed bank service charge (item 11f) is not allocated among customers (which would have the effect of reducing their respective operating surpluses), but is shown in the production account as a negative adjustment to operating surpluses generally. *Net operating surplus* is, in principle, the operating surplus after providing for the consumption of fixed capital, and is estimated by deducting depreciation allowances from gross operating surplus. *Depreciation allowances* are financial provisions made for depreciation and represent in the main amounts allowed under income tax legislation, but include also the estimated depreciation on tenanted and owner-occupied dwellings and provisions made by public enterprises.

Item 12. Indirect taxes less subsidies. Indirect taxes (item 12a) are taxes assessed on producers, i.e. enterprises and general government, in respect of the production, sale, purchase or use of goods and services, which are charged to the expenses of production. Subsidies (item 12b) are grants made by general government to enterprises which are credited to their production accounts. These grants may take the form of bounties on goods produced, payments to ensure a guaranteed price or to enable maintenance of prices of goods or services below cost of production, and other forms of assistance to producers.

Item 13. Dividends and interest, etc. Receipts and payments of dividends including dividends paid overseas and the remitted profits of Australian branches of overseas enterprises; and receipts and payments of interest, royalties and land rent. In most tables dividends are shown separately from interest etc. The items are shown net of intra-sector receipts and payments. *Net income paid overseas* comprises payments of dividends and interest etc. to overseas less receipts of dividends and interest etc. from overseas. *Interest on life and superannuation funds imputed to households* (13i), represents the net earnings after tax, of these funds from dividends, interest, rental charges and other income which are accumulated for the benefit of policy holders and members.

Item 14. Transfers to and from overseas. All transfers to or from overseas on public authority or private account which are not payments for goods and services or payments of dividends, interest, etc.

Item 14a. Personal transfers overseas. Gifts of money by resident persons and private institutions, payments for sustenance, and transfers of emigrants' funds and legacies from Australia to overseas, together with the value of goods exported as gifts.

Item 14b. General government transfers overseas. Grants to, and payments made on behalf of Papua New Guinea and expenditure overseas in respect of technical assistance and relief under the Colombo Plan and United Nations and other aid projects. Includes contributions to United Nations and other international organisations due by virtue of membership of these organisations.

Item 14c. Personal transfers from overseas. Gifts of money received from non-resident persons and private institutions, receipts for sustenance, and transfers of immigrants' funds and legacies from overseas to Australia, together with the value of goods imported as gifts.

Item 15. Income tax. Income tax payable by trading and financial companies (15a and 15c), life and superannuation funds (15b) and households (15d) are amounts payable at rates of taxation applicable in each year. Income tax payable by households includes the total income tax payable by individuals on all forms of income, whether wages, business income or property income. *Increase in income tax provisions*, the difference between the amounts of income tax payable in respect of the income of the year and the cash receipts by general government during the year, is a component of the savings of the nation.

Item 16. Undistributed income. The undistributed income of companies comprising trading enterprise companies (item 16a) and financial enterprise companies (item 16b) is the balance of company income, including dividends received from other sectors (items 13d and 13h) after deduction of income tax payable and dividends paid. No imputation is made to the beneficial owners and therefore the whole of the undistributed income is regarded as saving by resident enterprises. The income, and consequently the undistributed income, of financial enterprise companies includes increases in provisions for unexpired risks of casualty insurance companies and health insurance funds.

Item 17. Retained income of public financial enterprises. The net income of public financial enterprises (mainly government banks and insurance offices) less payments from net income to general government. The payments to general government may be described in the accounts of the enterprises as dividends, income tax, payments in lieu of income tax or transfers of profit. The retained income of public financial enterprises includes increases in provisions for unexpired risks of government insurance offices on casualty insurance, but excludes net earnings on life insurance funds (item 13i).

Item 18. Household saving. The excess of household income over the sum of private final consumption expenditure, interest paid, income tax payable, other direct taxes, fees, fines, etc., and transfers overseas. Household saving is estimated as the balancing item in the household income and outlay account. It includes saving through life insurance and superannuation funds (including net earnings on these funds) and the increase in assets with marketing boards. Household saving may also take the form of increases in holdings of cash and net purchases of securities, the net increase in bank deposits less advances, the reduction in the outstanding advances of instalment credit companies to households and the increase in the equity of households in dwellings and in capital equipment, buildings and stocks of unincorporated enterprises.

Item 19. Surplus on general government current transactions. The excess of income, including the whole of the net income of public trading enterprises, over current outlay. Current outlay includes final consumption expenditure, as defined in item 2, and transfer payments (interest, cash benefits, subsidies, grants for private capital purposes, and transfers overseas). The surplus is transferred to the general government capital account where it is shown as part of total funds available for financing capital accumulation.

Item 20. General government grants for private capital purposes. Grants to meet part of the costs of private capital expenditure, e.g. Home Savings grants, grants towards construction of science laboratories and libraries in private schools and of houses for aged persons, payments under the Currency Act in relation to the conversion of accounting and other machines following introduction of decimal currency; and compensation to primary industry marketing authorities for losses on overseas debts resulting from sterling devaluation.

Item 21. Net lending. The excess of net acquisition of financial assets by transactors over their net incurrence of liabilities. The net lending to overseas is the balance on current transactions in the overseas transactions account. However, it should be noted that it differs from the balance on current account shown in the balance of payments statistics by the net amount of undistributed income accruing overseas. The concept of net lending to overseas includes additions to overseas monetary reserves.

Item 22. Public enterprise income paid to general government. Includes the whole of the income of public trading enterprises and that part of the income of public financial enterprises which is paid to general government whether described by the enterprises as dividends, transfer of profits or as income tax. *Public enterprise income* for trading enterprises (item 22a) is equal to net operating surplus, being exclusive of interest received and before charging interest costs relating to the enterprises. (In principle interest receipts and payments of public corporate enterprises should be included in account 7 and only actual transfers to general government in account 10, but all interest costs and interest receipts of public trading enterprises are included with other interest transactions in the general government income and outlay account pending satisfactory identification of the interest relating to public trading enterprises.) *Public enterprise income* for financial enterprises (items 22b plus 17) is the net income after depreciation allowances, interest paid and working expenses are deducted from receipts of interest and charges for services. Depreciation allowances deducted in arriving at the income of public trading and financial enterprises are those shown in their published accounts, except in the case of some trading enterprises whose accounts, included in the Australian Government or State budgets, are analysed on the basis of their cash accounts (in which depreciation is not charged).

Item 23. Cash benefits from general government. Consists of *cash benefits* (item 23a) and *unfunded employee retirement benefits* (item 23b). *Cash benefits* includes current transfers to persons from general government in return for which no services are rendered or goods supplied. Principal components are scholarships, hospital, medical, pharmaceutical, maternity, sickness and unemployment benefits; child endowment, widows', age, invalid and repatriation pensions; and attendance money for waterside workers. *Unfunded employee retirement benefits* covers direct payments of pensions, etc., to employees by way of unfunded retirement benefit schemes.

Item 24. Other direct taxes, fees, fines, etc. Estate and gift duties paid and all other taxes, fees for services of a regulatory character, fines and gifts paid by persons to general government. Also included are employee contributions to unfunded retirement benefit schemes.

CHAPTER 17

PRIVATE FINANCE

Further information on the subjects dealt with in this chapter is contained in the annual bulletins *Banking and Currency* (5.1) and *Insurance and Other Private Finance* (5.15). Current information is contained in the *Quarterly Summary of Australian Statistics* (1.3), the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5) (monthly), and the following mimeographed statements: monthly—*Banking Statistics* (5.2); *Major Trading Banks Statistics* (preliminary statement) (5.3); *Savings Bank Statistics* (preliminary statement) (5.28); *Savings Banks Housing Finance Transactions within Australia* (preliminary statement) (5.35); *Life Insurance Statistics* (5.17); *Finance Companies* (5.14); *Instalment Credit for Retail Sales* (5.46); *Permanent Building Societies* (5.34); quarterly—*New Capital Raisings by Companies in Australia* (bulletin (5.9) and preliminary statement (5.10)); *Capital Expenditure by Private Business in Australia* (5.8) (5.7); *Unit Trusts, Land Trusts and Mutual Funds* (5.31). Other relevant annual mimeographed bulletins are *Life Insurance* (5.32); *Australian Fire, Marine and General Insurance Statistics* (5.16); *Government Pension and Superannuation Schemes* (5.23); *Survey of Selected Private Pension Funds* (5.25); *Finance Company Transactions* (5.13); and *Building Societies: Australia* (5.5).

MONEY

Currency

Australia has a decimal system of currency, the unit being the dollar which is divided into 100 cents. Decimal coins and notes became legal tender on the 14 February 1966. Before that date the Australian currency unit was the pound divided into 20 shillings each of 12 pence. One dollar in the present currency is equal to 10 shillings in the old currency. The par value of the Australian dollar under the terms of the International Monetary Fund and established on the 14 February 1966, was 0.99531 grams of gold, which changed on the 9 September 1973 to 1.09578 grams of gold.

The *Reserve Bank Act* 1965 authorised the Reserve Bank of Australia to issue Australian notes in denominations of \$1, \$2, \$5, \$10, \$20, and \$50, and any other denomination that the Treasurer, by instrument in writing published in the Gazette, determines. All Australia's coin requirements are met by the Royal Australian Mint, Canberra.

For additional information on note issue and coinage refer to List of Special Articles, etc., at end of this Year Book.

AUSTRALIAN NOTES IN CIRCULATION (\$'000)

	<i>Last Wednesday in June</i>				
	1969	1970	1971	1972	1973
\$1 and 10s	37,528	40,400	42,218	43,552	48,487
\$2 and £1	117,281	118,500	119,284	118,451	123,670
\$5	64,088	73,307	81,373	85,283	94,378
\$10 and £5	441,276	474,004	521,061	560,268	639,899
\$20 and £10	447,245	509,271	605,383	691,476	851,381
£20	1	1	..	..	..
£50	42	41	38	38	8
£100	40	37	31	31	19
Total	1,107,500	1,215,561	1,369,388	1,499,099	1,757,842
<i>Held by banks</i>	<i>164,867</i>	<i>165,202</i>	<i>177,706</i>	<i>182,648</i>	<i>229,222</i>
<i>Held by public</i>	<i>942,632</i>	<i>1,050,359</i>	<i>1,191,682</i>	<i>1,316,451</i>	<i>1,528,620</i>

AUSTRALIAN DECIMAL COIN: COSTS OF COIN ISSUED
(\\$'000)

	<i>Cost of metal</i>	<i>Cost of minting</i>	<i>Freight and sundry charges</i>	<i>Total cost</i>	<i>Face value of coin issued</i>	<i>Surplus</i>
Cupro-nickel—						
1969-70	1,226	1,297	68	2,591	19,412	16,821
1970-71	974	960	65	1,999	15,050	13,051
1971-72	721	698	77	1,496	10,758	9,262
1972-73	738	1,010	55	1,803	11,190	9,387
Bronze—						
1969-70	574	675	28	1,277	2,000	723
1970-71	703	675	36	1,414	2,068	654
1971-72	594	738	24	1,356	2,185	829
1972-73	712	1,066	46	1,824	2,795	971
Total—						
1969-70	1,800	1,972	96	3,868	21,412	17,544
1970-71	1,677	1,635	101	3,413	17,118	13,705
1971-72	1,315	1,436	101	2,852	12,943	10,091
1972-73	1,450	2,076	101	3,627	13,985	10,358

AUSTRALIAN DECIMAL COIN: VALUE OF COIN ISSUED
(\\$'000)

<i>Year ended 30 June—</i>	<i>50 cents</i>	<i>20 cents</i>	<i>10 cents</i>	<i>5 cents</i>	<i>2 cents</i>	<i>1 cent</i>	<i>Total</i>
1969 . . . . .	..	6,307	3,854	2,847	1,390	906	15,304
1970	9,038	5,053	3,074	2,247	1,121	879	21,412
1971	7,420	3,640	2,090	1,900	1,150	919	17,119
1972	4,418	3,360	1,740	1,240	1,370	815	12,943
1973	3,970	3,380	2,040	1,800	1,700	1,095	13,985

Gold receipts, issues and price

Since early in the 1939-45 War all gold has been acquired by the Reserve Bank, and the export and use of gold has been subject to regulation by the Commonwealth Government. All trading banks in Australia, the Deputy Master of the branch of the Royal Mint in Perth, and three private refining companies are authorised under the Banking (Gold) Regulations to deal in gold on behalf of the Reserve Bank. The Melbourne Mint ceased to deal in gold in 1964. The Royal Australian Mint at Canberra is not authorised to receive and issue gold.

The average price of gold in Australia is fixed by the Reserve Bank and at present reflects the parity value of Australian currency established in conformity with the *International Monetary Agreements Act 1947-1973*. The average price paid for gold delivered to the Reserve Bank of Australia or to persons authorised by the Bank to purchase gold is fixed by the Reserve Bank of Australia, and had been \$31.25 per fine ounce since 1 May 1954, changing to \$29.80 per fine ounce on 23 December 1972, and to \$28.38 per fine ounce on 10 September 1973.

In December 1951 arrangements were made whereby producers could sell a proportion of newly-mined gold for industrial purposes on overseas premium markets. Under these arrangements gold is acquired by the Reserve Bank in the usual manner and sold, at the Bank's buying price, to an association representing gold producers participating in the scheme. The association pays the Bank's handling charges and the costs of preparation of the gold and makes arrangements for export and sale. Profits earned by the association after meeting administrative expenses are distributed to members in proportion to the quantity of gold delivered to the Reserve Bank. Until August 1952, when permission was given for the export of fine gold, gold exported under this arrangement was not to exceed a fineness of 22 carats (11/12ths).

The average price per fine ounce in Australian currency obtained for gold on premium markets in Australia and overseas for each month during the year 1972-73 was: July \$54.91, August \$55.51, September \$54.81, October \$54.16, November \$51.88, December \$53.27, January \$50.76, February \$52.98, March \$58.46, April \$63.50, May \$67.18 and June \$83.53.

Overseas exchange rates

In the following table the "par of exchange" rate is the rate as at 30 June 1973 established under the International Monetary Fund Agreement. Selling rates shown are mainly the averages of daily quotations by the Commonwealth Trading Bank of Australia, and in other cases are the rates used by the Department of Customs and Excise in converting import values to Australian dollars for purposes of calculating customs duty.

OVERSEAS EXCHANGE RATES: PAR OF EXCHANGE AND AVERAGE TELEGRAPHIC TRANSFER SELLING RATES FOR SYDNEY ON OVERSEAS COUNTRIES, 1972-73

Country	Basis of quotation	Australian decimal currency equivalents		Country	Basis of quotation	Australian decimal currency equivalents	
		Par of exchange	Selling rate 1972-73			Par of exchange	Selling rate 1972-73
America, United States of	Dollars to \$A1	1.417	1.2811	Italy (financial)	Lire to \$A1	(a)	(b)828
Austria	Schillings to \$A1	(a)	25.870	(commercial)	Lire to \$A1	—	(b)815
Belgium (financial)	Francs to \$A1	(a)(b)	53.511	Japan	Yen to \$A1	(a)	363.487
(convertible)	Francs to \$A1	—	53.653	Netherlands	Guilders to \$A1	(a)	3.924
Canada	Dollars to \$A1	(a)(b)	1.2683	New Zealand	Dollars to \$A1	1.049	1.030
China, People's Rep. of	New Yuan to \$A1	(c)	2.735	Norway	Kroner to \$A1	(a)	7.976
Denmark	Kroner to \$A1	(a)	8.384	Noumea	Francs to \$A1	(c)	110.02
Fiji	Dollars to \$A1	(a)	1.051	Pakistan	Rupees to \$A1	(d)	(e)
France (financial)	Francs to \$A1	(a)(b)	6.049	Philippines	Pesos to \$A1	(a)	8.587
(commercial)	Francs to \$A1	—(b)	6.123	Singapore	Dollars to \$A1	(a)	3.375
Germany, Fed. Rep. of	Deutsche Marks to \$A1	(a)	3.853	South Africa, Republic of	Rands to \$A1	(a)	0.9567
Greece	Drachmae to \$A1	42.51	37.791	Spain	Pesetas to \$A1	82.2	78.086
Hong Kong	Dollars to \$A1	(c)	6.936	Sri Lanka (formerly Ceylon)	Rupees to \$A1	(d)	8.115
India	Rupees to \$A1	(a)	9.735	Sweden	Kronor to \$A1	(a)	5.865
				Switzerland	Francs to \$A1	(c)	4.502
				Taiwan	Dollars to \$A1	53.85	53.073
				United Kingdom	Pounds to \$A1	(a)	0.522
				U.S.S.R.	Roubles to \$A1	(c)	1.016

(a) Exchange rate allowed to fluctuate, no par value fixed. (b) Two rates quoted for Belgium and France from 20 September 1971 and Italy from 1 February 1973: 'convertible' rate (Belgium), 'commercial' rate (France, Italy) for trade transactions accompanied by documentation and 'financial' rate for other transactions. (c) Not a member of the International Monetary Fund. (d) No par value established. (e) Daily quotations available on application to the Commonwealth Trading Bank of Australia.

Volume of money

The statistics of volume of money compiled by the Reserve Bank of Australia include notes and coin in the hands of the public, deposits of the public with trading banks and deposits with all savings banks. As far as possible, all components of this series in the table below have been calculated on a weekly average basis. Deposits of the public with trading banks comprise the actual weekly average of current and fixed deposits with trading banks less both the actual weekly average of the Australian and State Government current and fixed deposits and a weekly average of inter-bank current and fixed deposits. Inter-bank deposits mainly comprise savings bank deposits with trading banks and deposits of overseas banks with trading banks in Australia. Certificates of deposit include any holdings by the Australian and State Governments and banks. Deposits of the public with trading banks also include the actual weekly average of deposits of the public with the Reserve Bank of Australia. Deposits with all savings banks comprise an interpolated "weekly average" based on end-of-month figures of total deposits with all savings banks. The figures for the volume of money include details for Papua New Guinea and Australia's other external territories.

VOLUME OF MONEY: AUSTRALIA

(Source: Reserve Bank of Australia)

(\$ million)

Average of weekly figures for June	Notes and coin in hands of public	Deposits of public with all trading banks(a)			Deposits with all savings banks(b)	Total volume of money
		Current	Fixed	Certificates of deposits		
1969	1,065	3,685	2,404	138	6,682	13,974
1970	1,187	3,798	2,617	145	7,090	14,837
1971	1,336	3,976	2,864	56	7,618	15,851
1972	1,467	4,328	3,260	113	8,339	17,508
1973	1,702	5,615	4,108	447	10,129	22,001

(a) Current and fixed deposits exclude the Australian and State Government and inter-bank deposits but include deposits of the public with the Reserve Bank; certificates of deposit include any holdings by the Australian and State Governments and banks. (b) Interpolated "Weekly average" based on end-of-month figures.

BANKING

The Australian banking system has developed along the lines of the United Kingdom system with widespread branch banking conducted by relatively few banks.

Development since federation

With federation in 1901 the new Commonwealth Parliament was given power, under Section 51 of the Commonwealth Constitution, to legislate with respect to 'Banking, other than State Banking, also State Banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'. In 1911 the Commonwealth entered the field of banking with the establishment of the Commonwealth Bank of Australia, which conducted both trading bank and savings bank operations. A separate Commonwealth Savings Bank was established in 1928.

Central bank

Central banking functions of the Commonwealth Bank developed gradually over the years prior to and during the second world war. In November 1935 a Royal Commission was appointed by the Commonwealth Government to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report in July 1937, and a summary of the recommendations appears in Year Book No. 31, page 1010.

In 1945 the Commonwealth Government legislated to give full legal effect to the central banking functions already being exercised by the Commonwealth Bank of Australia and to regulate the banking system as a whole. The Commonwealth Bank of Australia further developed mainly as a central bank when from 3 December 1953 the Commonwealth Trading Bank of Australia was established to take over most of the general trading bank functions of the Commonwealth Bank of Australia.

Legislation in 1959 completed the separation of the trading and central banking functions of the Commonwealth Bank of Australia with the establishment of the Commonwealth Development Bank of Australia under the *Commonwealth Banks Act 1959* to take over the Industrial Finance Department and Mortgage Bank Department of the Commonwealth Bank of Australia.

A new bank, the Reserve Bank of Australia, was established under the *Reserve Bank Act 1959* as the nation's central bank to administer the provisions of a new banking Act (*Banking Act 1959*). A statutory corporation, the Commonwealth Banking Corporation, was set up under the *Commonwealth Banks Act 1959* to control the Commonwealth Trading Bank of Australia, the Commonwealth Development Bank of Australia, and the Commonwealth Savings Bank of Australia.

Trading banks

Commercial banking in Australia is carried on by thirteen trading banks. Six large private trading banks together with the Commonwealth Trading Bank are generally referred to as the major trading banks. These banks provide widespread banking facilities throughout Australia. The remaining six banks comprise one small local bank, two overseas banks which have been represented in Australia for many years and three State-owned banks operating only within their respective States.

The major trading banks are as follows: Commonwealth Trading Bank of Australia, Australia and New Zealand Banking Group, The Bank of Adelaide, Bank of New South Wales, The Commercial Bank of Australia Ltd, The Commercial Banking Company of Sydney Ltd, and The National Bank of Australasia Ltd.

The other trading banks are: Bank of Queensland Ltd, Bank of New Zealand, Banque Nationale de Paris, The Rural Bank of New South Wales, State Bank of South Australia, The Rural and Industries Bank of Western Australia (Rural Department), and the Bank of China up to 20 December 1972.

Term Loan Fund

Lending by trading banks is generally conducted on an overdraft basis. A departure from this practice followed discussions during 1961-62 involving the Commonwealth Government, the Reserve Bank and the major trading banks, which resulted in arrangements whereby the banks agreed to create a fund known as the Term Loan Fund, the resources of which would be employed to make loans for capital expenditure on production in the rural, industrial and (to a lesser extent) commercial fields and to finance exports. The loans would be made for fixed terms, varying usually between three and eight years. The term lending arrangements operated from April 1962.

Farm Development Loan Fund

Discussions in March 1966 between the Commonwealth Government, the Reserve Bank and the major trading banks resulted in the establishment of a fund known as the Farm Development Loan Fund, from which resources would be available to provide rural producers, particularly smaller producers, with greater access to medium and long-term finance. The Fund was established in April 1966.

Savings banks

Prior to 1956 savings banks operations were conducted by the Commonwealth Savings Bank, two trustee savings banks in Tasmania, and State-owned banks in Victoria, South Australia and Western Australia. In January 1956 private savings banks were established as subsidiary companies by two of the private trading banks. By mid-1962 all the major private trading banks had established savings bank subsidiary companies. In May 1972 the Bank of New Zealand Savings Bank Limited was granted an authority to carry on savings bank business in Australia.

Development banks

The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act* 1959 and commenced operations on 14 January 1960. The Australian Resources Development Bank was established by the major trading banks with the support of the Reserve Bank of Australia and commenced operations in February 1968. For further information on these banks see pages 530-1.

Current legislation

Operations of banks and banking in Australia are currently governed by (i) Commonwealth legislation enacted in 1959 in respect of banking other than State banking, and (ii) State legislation relating to the incorporation of banks and management of State banks.

Commonwealth banking legislation

(a) The *Banking Act* 1959-1973 applies to all banks operating in Australia including the external Territories of the Commonwealth except State banks trading in their own State. The objects of the Act are: (i) to provide a legal framework uniform throughout Australia for regulating the banking system; (ii) to safeguard depositors of the banks from loss; (iii) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (iv) to control the volume of credit in circulation and bank interest rates; (v) to mobilise and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy. A summary of the main provisions of the *Banking Act* 1959 is given in Year Book No. 46, pages 759-60.

(b) The *Reserve Bank Act* 1959-1973 provides for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue

(c) The *Commonwealth Banks Act* 1959-1973 provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia, and Commonwealth Development Bank of Australia.

The Commonwealth Banking Corporation is the controlling body for the Commonwealth Trading Bank, Commonwealth Savings Bank and Commonwealth Development Bank. Under the *Banking Act* 1959-1973 the Corporation and its constituent banks are subject to the same central banking controls as are the private trading banks.

State Banking legislation

The State Acts under which the various banks are incorporated differ. While some of the older banks were incorporated by special Act or Charter, e.g. the Bank of New South Wales by Act of Council 1817, the Bank of Adelaide by Act of the South Australian Parliament, and the Bank of New Zealand by Act of the General Assembly of New Zealand, most of the banks are incorporated under a companies Act of the States or the United Kingdom. This is also the case with those banks which were reconstructed after the financial crisis of 1893. State banks, constituted under State Acts, transacting general banking business are The Rural Bank of New South Wales, the State Bank of South Australia, and the Rural and Industries Bank of Western Australia. State savings banks, constituted under State Acts, transacting savings bank business are The State Savings Bank of Victoria, The Savings Bank of South Australia and the Savings Bank Division of the Rural and Industries Bank of Western Australia.

Reserve Bank of Australia

The Reserve Bank of Australia preserved and continued in existence the original corporate body known as the Commonwealth Bank of Australia under the new name Reserve Bank of Australia. An account of the progress and development of that bank is given in earlier issues of the Year Book (see No. 37, pages 570-2, and No. 45, pages 735-7).

The general functions of the Reserve Bank are set out in Section 10 of the *Reserve Bank Act* 1959-1973, which states:

'It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank under this Act, the *Banking Act* 1959, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to,

(a) the stability of the currency of Australia; (b) the maintenance of full employment in Australia; and (c) the economic prosperity and welfare of the people of Australia.'

In addition to its functions as a central bank, the Bank controls the Australian note issue through a Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as banker to the Commonwealth and some of the States.

Management

The policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman) the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

Central banking business

Under the *Commonwealth Bank Act* 1911-1943 and the war-time powers conferred by the National Security Regulations the Commonwealth Bank gradually assumed the functions of a Central Bank. Part III of the *Commonwealth Bank Act* 1945 formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank, these powers being carried through into the present Act constituting the Reserve Bank. Under the provisions of the *Reserve Bank Act* 1959 the capital for the Central Banking Business is the capital of the Commonwealth Bank for Central Banking purposes immediately prior to 14 January 1960, and such other sums as are transferred from the Reserve Bank Reserve Fund. The profits of the Bank are distributed as follows: (a) such sums as the Treasurer, after consultation with the Bank, determines shall be placed to the credit of the Reserve Bank Reserve Fund and (b) the remainder shall be paid to the Commonwealth.

Note Issue Department

The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes. Under the *Reserve Bank Act* 1959-1973 the profits of the Note Issue Department are paid to the Commonwealth.

Rural Credits Department

The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the Bank, or other security associated with the production or marketing of primary produce, to co-operative associations or marketing boards formed under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance shall not exceed one year. Under the provisions of the *Reserve Bank Act* 1959 the capital of the Rural Credits Department is the capital of the Rural Credits Department of the Commonwealth Bank immediately prior to 14 January 1960, and \$4,000,000 provided by the Reserve Bank. The profits of the Rural Credits Department are dealt with as follows: (a) one-half to the credit of the Rural Credits Department Reserve Fund and (b) one-half to the credit of the Rural Credits Development Fund.

RESERVE BANK OF AUSTRALIA: LIABILITIES

(\$ million)

30 June—	Capital and reserve funds	Development fund	Special reserve— I.M.F. special drawing rights	Australian notes on issue	Deposits of trading banks		Deposits of savings banks	Other deposits, bills payable and other liabilities	Total
					Statutory reserve deposit accounts	Other			
CENTRAL BANKING BUSINESS									
1969	63.0	..	..	..	565.6	60.4	535.2	658.0	1,882.1
1970	66.7	..	75.0	..	674.5	39.5	613.2	672.2	2,141.2
1971	70.7	..	138.6	..	617.5	62.8	615.5	1,098.9	2,603.9
1972	65.6	..	201.6	..	554.2	88.9	802.9	2,094.9	3,808.1
1973	45.6	..	192.4	..	784.1	39.4	1,323.0	2,346.7	4,731.2
NOTE ISSUE DEPARTMENT									
1969	..	..	..	1,091.5	..	..	..	45.9	1,137.4
1970	..	..	..	1,195.8	..	..	..	62.5	1,258.3
1971	..	..	..	1,369.4	..	..	..	74.2	1,443.6
1972	..	..	..	1,508.2	..	..	..	59.2	1,567.4
1973	..	..	..	1,767.4	..	..	..	24.0	1,791.4
RURAL CREDITS DEPARTMENT									
1969	17.6	0.9	..	..	..	..	..	461.8	480.3
1970	18.5	1.1	..	..	..	..	..	338.5	358.1
1971	19.3	1.1	..	..	..	..	..	288.3	308.7
1972	20.0	1.1	..	..	..	..	..	239.7	260.8
1973	20.7	0.7	..	..	..	..	..	184.5	206.0
TOTAL									
1969	80.6	0.9	..	1,091.5	565.6	60.4	535.2	(a)420.8	(a)2,754.9
1970	85.2	1.1	75.0	1,195.8	674.5	39.5	613.2	(a)478.7	(a)3,162.9
1971	90.0	1.1	138.6	1,369.4	617.5	62.8	615.5	(a)765.8	(a)3,660.6
1972	85.6	1.1	201.6	1,508.2	554.2	88.9	802.9	(a)1,361.6	(a)4,604.1
1973	66.3	0.7	192.4	1,767.4	784.1	39.4	1,323.0	(a)2,555.2	(a)6,728.5

(a) Inter-departmental accounts have been offset.

RESERVE BANK OF AUSTRALIA: ASSETS

(\$ million)

30 June—	Gold and balances held abroad (a)	Other overseas securities	Australian notes, coin	Australian Government securities (b)	Cheques and bills of other banks	Loans, advances, bills discounted, all other assets (c)	Bank premises (d)	Bills receivable and remittances in transit	Total
1969	589.1	231.6	8.4	386.0	10.8	570.1	35.0	51.1	1,882.1
1970	758.8	201.5	12.6	573.9	8.0	469.0	36.3	81.1	2,141.2
1971	1,285.0	285.0	11.4	453.1	3.4	392.7	37.9	135.4	2,603.9
1972	2,680.5	376.2	12.3	299.2	4.7	297.2	41.6	96.3	3,808.1
1973	3,152.1	525.8	9.7	411.0	9.4	446.0	49.5	127.6	4,731.2
NOTE ISSUE DEPARTMENT									
1969	164.5	198.5	..	457.3	..	(e)316.8	0.3	..	1,137.4
1970	189.9	168.0	..	606.1	..	(e)294.0	0.4	..	1,258.3
1971	289.0	257.1	..	447.7	..	(e)449.2	0.6	..	1,443.6
1972	296.6	234.7	..	199.5	..	(e)834.7	1.8	..	1,567.4
1973	199.8	226.7	..	197.4	..	(e)1,165.5	2.0	..	1,791.4
RURAL CREDITS DEPARTMENT									
1969	..	..	..	..	..	480.3	..	..	480.3
1970	..	..	..	..	..	358.1	..	..	358.1
1971	..	..	..	..	..	308.7	..	..	308.7
1972	..	..	..	..	..	260.8	..	..	260.8
1973	..	..	..	..	..	206.0	..	..	206.0
TOTAL(f)									
1969	753.5	430.1	8.4	843.3	10.8	622.4	35.3	51.1	2,754.9
1970	948.7	369.5	12.6	1,180.0	8.0	526.4	36.7	81.1	3,162.9
1971	1,574.0	542.1	11.4	900.7	3.4	455.1	38.6	135.4	3,660.6
1972	2,977.1	610.9	12.3	498.8	4.7	360.5	43.5	96.3	4,604.1
1973	3,351.9	752.4	9.7	608.4	9.4	1,817.5	51.6	127.6	6,728.5

(a) Includes currency at short call and International Monetary Fund drawing rights. (b) Includes Treasury bills and Treasury notes. (c) After deducting provision for debts considered bad or doubtful. (d) At cost, less amounts written off. (e) Includes interest-bearing deposit account established with the Central Bank. (f) Inter-departmental accounts have been offset.

RESERVE BANK OF AUSTRALIA: NET PROFITS
(\$ million)

	<i>Central Banking Business</i>	<i>Note Issue Depart- ment</i>	<i>Rural Credits Depart- ment</i>	<i>Total</i>	<i>Distributed to—</i>			
					<i>Common- wealth of Australia</i>	<i>Reserve Bank Reserve fund</i>	<i>Rural Credits Department</i>	
							<i>Reserve fund</i>	<i>Develop- ment fund</i>
1968-69 .	5.7	23.8	1.6	31.1	26.6	2.9	0.8	0.8
1969-70 .	8.9	36.3	1.9	47.1	41.6	3.6	0.9	0.9
1970-71 .	11.3	46.9	1.6	59.8	54.2	4.0	0.8	0.8
1971-72 .	4.9	25.2	1.5	31.6	25.2	4.9	0.7	0.7
1972-73 .	..	..	1.3	1.3	..	..	0.6	0.6

Trading banks

Balance sheet information contained in the table on page 521 and profit and loss account information contained in the table at the top of page 521 for the years 1969 to 1973 does not relate to uniform accounting periods but rather to the financial years of the banks which ended in the years shown. For balance dates of individual banks *see* annual bulletin *Banking and Currency* (5.1).

Figures shown for averages of liabilities and assets in the table on page 522 are the average of liabilities and assets within Australia (including Papua New Guinea and other External Territories) of the banks on the weekly balance days (Wednesdays) during the period concerned. In the table on page 523 figures shown for debits to customers' accounts are the average of debits for the weeks ending on the weekly balance days (Wednesdays) during the period concerned. In the table on page 524 figures shown for new and increased lending commitments are the averages of weekly commitments for the six months ending on the second Wednesday of the last month in the period under review.

In the classification of bank advances, borrowers are classified into two main groups.

Resident borrowers comprising all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia, and

Non-resident borrowers comprising all other persons and institutions, including companies incorporated abroad, which, although represented, do not carry on business in Australia.

Advances to resident borrowers are classified into.

Business advances which are advances to partnerships, companies and other institutions engaged in business in Australia, advances to individuals actively engaged in business or a profession on their own behalf if the advances are mainly for purposes of that business or profession, and advances to mutual, co-operative and benefit societies which distribute their profits to members by way of dividends, rebates of charges for goods and services, or increased benefits.

Separate figures are shown for business advances to companies and to other (unincorporated) businesses and advances are also classified to the main industry of borrower.

Advances to public authorities which are advances to local and semi-government authorities including separately constituted government business undertakings but not the Australian and State governments.

Personal advances which are advances to individuals for purposes other than carrying on a business or profession.

Advances to non-profit organisations which are advances to organisations which are not operated for the purpose of making a profit or gain to individual members, but for the purposes of the organisations or for the benefit of the community in general.

The classification used for overdraft limits is the same as that used for the classification of bank advances (*see* above) while abridged versions of this classification are used for bank deposits and new and increased lending commitments.

Interest rates

At 30 June 1974 the maximum rate of interest paid by trading banks for the following terms were: (i) on fixed deposits of less than \$50,000, 3 months and less than 12 months—6.75 per cent, 12 months and less than 2 years—7.50 per cent, 2 years and less than 4 years—7.50 per cent, 4 years—7.50 per cent; (ii) on fixed deposits of \$50,000 and over, 30 days to 4 years—8.00 per cent; (iii) on certificates of deposit (\$50,000 and over), 3 months to 4 years—not subject to maximum rate. The maximum rate of interest charged on overdrafts was 9.50 per cent and the maximum flat rate on unsecured personal loans was 7.25 per cent.

Branches and agencies

At 30 June 1973 the major trading banks operated 4,473 branches, and the other trading banks 300 branches. Of the total of 4,773 branches, 2,400 were located in 'metropolitan areas'. Trading bank facilities were also available at 1,417 agencies throughout Australia at 30 June 1973.

Liabilities and assets**TRADING BANKS(a): LIABILITIES AND ASSETS(b)**

(\$ million)

LIABILITIES

	Paid-up capital	Reserve funds (used in business of bank)	Final dividend proposed	Balance of profit and loss account	Total shareholders' funds or total capital and reserve funds	Balances due to other banks	Deposits, bills payable and other liabilities(c)	Total
1969 . . .	269.9	245.7	8.7	22.0	546.1	335.9	8,671.6	9,553.6
1970 . . .	358.6	253.7	12.6	27.3	652.1	460.5	9,295.3	10,407.9
1971 . . .	326.7	273.4	13.3	30.4	643.7	690.8	10,009.0	11,343.6
1972 . . .	341.5	313.2	16.0	33.5	704.1	801.1	11,981.7	13,487.0
1973 . . .	376.9	388.1	19.3	35.6	819.9	798.3	15,659.9	17,278.1

ASSETS

	Coin, bullion, notes and cash at Reserve Bank	Money at short call overseas	Australian public securities					Loans to authorised dealers in short-term money market	Total
			Australian Government		Local and semi-government authorities	Other public securities	Other securities		
			Treasury bills and notes	Other securities					
1969 . . .	250.3	57.4	77.8	1,344.8	38.9	51.9	149.5	158.2	
1970 . . .	252.6	49.6	92.7	1,244.3	47.3	39.3	229.4	132.2	
1971 . . .	220.0	49.7	106.5	1,427.1	50.8	71.6	273.4	155.6	
1972 . . .	208.3	58.8	258.9	2,100.7	60.1	172.0	310.4	297.9	
1973 . . .	219.7	81.6	186.5	2,258.5	64.8	258.3	400.3	294.5	

	Statutory reserve deposit account with Reserve Bank	Cheques and bills of, and balances with and due from other banks	Loans(d), advances and bills discounted	Bank premises, furniture and sites	Bills receivable and remittances in transit	All other assets	Total
1969 . . .	582.7	420.7	5,004.3	185.3	1,137.4	94.4	9,553.6
1970 . . .	632.0	400.4	5,707.6	199.2	1,181.7	199.7	10,407.9
1971 . . .	611.6	511.3	6,179.8	178.5	1,271.8	235.9	11,343.6
1972 . . .	566.4	753.2	6,866.8	199.7	1,378.8	255.0	13,487.0
1973 . . .	905.1	837.9	9,612.4	217.3	1,549.2	392.0	17,278.1

(a) Excludes the overseas banks but includes the deposits and assets held against those deposits of the Savings Bank Division of the Rural and Industries Bank of Western Australia. (b) This table relates to liabilities and assets both inside and outside Australia. (c) Includes provisions for contingencies. (d) Other than loans to authorised dealers in the short-term money market.

TRADING BANKS(a): PROFIT AND LOSS, APPROPRIATION OF PROFITS(b)
(\$ million)

	Profit and loss			Profits appropriated to—				
	Net earnings (c)	Expenses (d)	Income, land and other taxes and payments in lieu of taxes	Net profit	Reserve funds (e)	Writing-off bank premises	Other appropriations	Dividends paid and proposed
1969	422.2	335.5	41.5	45.2	13.4	1.4	2.5	21.6
1970	478.9	378.9	43.8	56.3	15.8	1.0	3.1	31.1
1971	525.6	443.0	36.2	46.3	12.6	1.0	3.9	25.8
1972	586.8	489.8	42.7	54.3	17.0	1.1	3.9	28.8
1973	707.6	561.8	71.5	74.4	30.8	1.1	4.9	33.6

(a) Excludes the overseas banks. (b) Includes profit and loss on account of the Savings Bank Division of the Rural and Industries Bank of Western Australia. (c) Discount and interest earned, net exchange, commissions and other items (including transfers from contingencies accounts) after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets and losses on realisation of assets, and transfers to the credit of contingencies accounts (out of which accounts provision for all bad and doubtful debts has been made). (d) Includes directors' fees. (e) Excludes accumulated profits and profit and loss accounts.

ALL TRADING BANKS: AVERAGE LIABILITIES AND ASSETS(a) WITHIN AUSTRALIA(b)
(\$ million)

LIABILITIES(c)

June	Deposits repayable in Australia				Balances due to other banks	Bills payable and all other liabilities to the public	Total
	Fixed	Current		Total			
		Bearing interest	Not bearing interest				
1969	2,850.5	467.9	3,387.2	6,705.6	111.5	322.2	7,139.3
1970	3,097.2	462.9	3,538.9	7,098.9	257.7	439.4	7,796.0
1971	3,176.5	551.2	3,703.5	7,431.2	320.8	526.0	8,278.0
1972	3,742.1	538.0	4,042.0	8,322.1	372.0	559.3	9,253.4
1973	5,152.2	648.6	5,271.7	11,072.5	351.0	726.3	12,149.7

ASSETS(d)

June	Coin, bullion, notes and cash at Reserve Bank	Australian Government securities		Local and semi-government securities	Loans to authorised dealers in short-term money market	Statutory reserve deposit account with Reserve Bank	Loans(e), advances and bills discounted	All other assets	Total
		Treasury bills and notes	Other securities						
1969	158.5	52.9	1,389.6	20.3	94.9	567.6	4,383.6	615.0	7,282.4
1970	171.9	54.3	1,275.2	23.7	102.8	678.7	4,902.6	751.3	7,960.5
1971	182.0	110.8	1,339.5	25.5	142.0	619.8	5,316.8	863.4	8,600.0
1972	190.1	116.7	1,702.9	29.2	249.8	558.2	5,875.7	921.2	9,643.7
1973	213.6	189.0	2,221.0	27.6	149.6	784.7	7,856.2	1,181.2	12,622.9

(a) Figures shown for average of liabilities and assets are the average of liabilities and assets within Australia of the banks at the close of business on the weekly balance days (usually Wednesdays) during the period concerned. (b) Includes Papua New Guinea and other External Territories. (c) Excludes shareholders' funds, inter-branch accounts and contingencies. (d) Excludes inter-branch accounts and contingencies. (e) Excludes loans to authorised dealers in the short-term money market.

TRADING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS^(a)
(\$ million)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
1968-69	1,526.0	1,214.1	325.3	224.2	209.0	55.9	7.4	50.4	3,612.6
1969-70	1,865.6	1,413.3	364.7	243.2	246.4	61.2	12.7	87.7	4,294.9
1970-71	2,148.6	1,647.3	405.0	269.6	295.3	64.2	15.8	64.6	4,910.4
1971-72	2,363.0	1,808.7	459.1	293.1	318.4	70.0	18.7	41.8	5,372.8
1972-73	3,058.0	2,306.7	597.5	336.4	355.9	85.3	17.8	64.6	6,822.2

(a) Covers all trading banks and in addition the Rural Credit Department of the Reserve Bank and the Commonwealth Development Bank. Excludes debits to the Australian and State Government accounts in capital cities.

Major Trading Banks: classification of bank advances, deposits, new and increased lending commitments and overdraft limits

For an explanation of items in the following table see notes on page 520.

CLASSIFICATION OF TOTAL ADVANCES WITHIN AUSTRALIA^(a)

	<i>At second Wednesday of—</i>							
	<i>July 1972</i>		<i>January 1973</i>		<i>July 1973</i>		<i>January 1974</i>	
	<i>Amount (\$m)</i>	<i>Per cent</i>	<i>Amount (\$m)</i>	<i>Per cent</i>	<i>Amount (\$m)</i>	<i>Per cent</i>	<i>Amount (\$m)</i>	<i>Per cent</i>
<i>Resident borrowers—</i>								
<i>Business advances—</i>								
Agriculture, grazing and dairying	962.5	17.9	919.0	15.9	1,050.6	14.4	1,052.3	13.3
Manufacturing	879.2	16.3	817.5	14.2	970.1	13.3	1,061.6	13.4
Transport, storage and communication	94.5	1.8	102.5	1.8	125.8	1.7	136.7	1.7
<i>Finance—</i>								
Building and housing societies	44.3	0.8	42.9	0.7	89.8	1.2	65.2	0.8
Other	266.6	5.0	310.8	5.5	485.1	6.6	500.1	6.3
Total finance	311.0	5.8	353.6	6.1	574.9	7.9	565.3	7.1
<i>Commerce—</i>								
Retail trade	363.0	6.7	353.2	6.1	448.3	6.1	441.6	5.6
Wholesale trade ^(b)	360.9	6.7	459.5	8.0	501.8	6.9	574.0	7.2
Total commerce	723.9	13.4	812.7	14.1	950.1	13.0	1,015.6	12.8
Building and construction	167.3	3.1	191.8	3.3	293.1	4.0	319.0	4.0
Other businesses	1,007.2	18.7	1,063.3	18.4	1,364.8	18.7	1,487.9	18.8
Unclassified	59.3	1.1	82.1	1.4	104.9	1.4	96.5	1.2
Total business advances of which—	4,204.9	78.1	4,342.4	75.2	5,434.3	74.4	5,734.9	72.4
Companies	2,696.2	50.1	2,801.5	48.5	3,530.6	48.3	3,698.0	46.7
Other	1,508.6	28.0	1,540.9	26.7	1,903.7	26.1	2,036.9	25.7
Advances to public authorities ^(c)	68.1	1.3	82.9	1.4	50.4	0.6	84.2	1.1
<i>Personal advances classified according to main purpose of advance—</i>								
Building or purchasing own home (individuals)	340.7	6.3	391.2	6.8	475.4	6.5	569.6	7.2
Other (including personal loans)	691.9	12.9	868.9	15.1	1,247.9	17.1	1,414.3	17.6
Total personal	1,032.6	19.2	1,260.1	21.8	1,723.3	23.6	1,983.9	24.8
Advances to non-profit organisations	72.1	1.3	82.7	1.4	85.6	1.2	94.2	1.2
Total advances to resident borrowers	5,377.7	99.9	5,768.2	99.9	7,293.6	99.8	7,897.2	99.8
<i>Advances to non-resident borrowers</i>	6.8	0.1	7.1	0.1	12.4	0.2	12.6	0.2
Total all advances	5,384.5	100.0	5,775.3	100.0	7,306.0	100.0	7,909.8	100.0

(a) Includes Papua New Guinea. (b) Includes temporary advances to woolbuyers. (c) Includes local government and semi-government bodies.

MAJOR TRADING BANKS: CLASSIFICATION OF DEPOSITS(a) WITHIN AUSTRALIA(b)

	At second Wednesday of—							
	July 1972		January 1973		July 1973		January 1974	
	Amount (\$m)	Per cent	Amount (\$m)	Per cent	Amount (\$m)	Per cent	Amount (\$m)	Per cent
Resident depositors—								
Business deposits—								
Agriculture, grazing and dairying	792.8	10.9	1,000.8	11.2	1,008.1	10.5	1,297.6	12.2
Manufacturing	363.6	4.9	540.7	6.0	498.5	5.2	609.7	5.8
Transport, storage and communication	100.9	1.3	122.8	1.4	133.2	1.4	142.4	1.3
Finance	552.1	7.5	832.6	9.3	829.4	8.7	906.7	8.6
Commerce	476.5	6.5	690.3	7.7	642.9	6.7	800.2	7.5
Building and construction Other businesses	223.4	3.0	259.3	2.9	258.0	2.7	280.8	2.7
Unclassified	1,081.6	14.7	1,309.6	14.6	1,571.1	16.4	1,565.4	14.7
	114.1	1.5	125.0	1.4	146.2	1.5	137.7	1.3
Total business deposits	3,705.0	50.6	4,881.0	54.5	5,087.4	53.1	5,740.4	54.1
of which—								
Companies	1,753.6	24.0	2,496.7	27.9	2,504.3	26.1	2,790.2	26.3
Other	1,951.3	26.7	2,384.3	26.6	2,583.0	27.0	2,950.2	27.8
Deposits of public authorities	552.3	7.6	731.4	8.2	852.2	8.9	913.8	8.6
Personal deposits	2,565.7	35.1	2,811.8	31.4	3,000.9	31.3	3,368.5	31.7
Deposits of non-profit organisations	361.7	4.9	358.4	4.0	410.6	4.3	432.1	4.1
Total resident depositors	7,184.8	98.2	8,782.5	98.0	9,351.1	97.6	10,454.7	98.5
Total non-resident depositors	132.8	1.8	178.1	2.0	230.6	2.4	158.3	1.5
Total all depositors	7,317.5	100.0	8,960.6	100.0	9,581.7	100.0	10,613.0	100.0

(a) Excludes deposits of the Australian and State Governments. (b) Includes Papua New Guinea.

MAJOR TRADING BANKS: NEW AND INCREASED LENDING COMMITMENTS
TO SELECTED INDUSTRIAL GROUPS(a)

(Source: Reserve Bank of Australia)

(\$ million)

	Six months ended second Wednesday of—							
	July 1972		January 1973		July 1973		January 1974	
	Aggre- gate	Term loan com- ponent	Aggre- gate	Term loan com- ponent	Aggre- gate	Term loan com- ponent	Aggre- gate	Term loan com- ponent
Business—								
Agriculture, grazing and dairying	(b)188.3	18.4	(b)243.9	28.3	(b)391.7	27.9	(b)243.9	28.3
Manufacturing	315.4	54.2	264.1	49.6	372.2	45.2	264.1	49.6
Finance	109.8	1.2	135.8	1.3	314.6	13.9	135.8	1.3
Commerce	219.5	6.2	291.0	6.6	360.9	15.3	291.0	6.6
Building and construction	121.8	6.8	140.2	3.7	211.2	5.8	140.2	3.7
Persons—								
Advances for building or purchase of own home (to individuals)	204.2	..	257.3	..	389.8	..	257.3	..
Other (including personal loans)	348.9	..	443.4	..	667.4	..	443.4	..
All other	423.7	42.0	538.7	35.0	698.2	58.2	538.7	35.0
Total	(b)1,931.5	128.8	(b)2,314.5	124.5	(b)3,405.9	166.3	(b)2,314.5	124.5

(a) Excludes commitments in respect of temporary advances to woolbuyers. (b) Includes Farm Development Loan approvals: July 1972, \$37.0 million; January 1973, \$55.1 million; July 1973, \$118.2 million; and January 1974, \$55.1 million.

**MAJOR TRADING BANKS: CLASSIFICATION OF OVERDRAFT LIMITS
OUTSTANDING^(a)**

(Source: Reserve Bank of Australia)

(\$ million)

	Second Wednesday of—			
	July 1972	January 1973	July 1973	January 1974
<i>Resident borrowers—</i>				
Business overdraft limits—				
Agriculture, grazing and dairying—				
Mainly sheep grazing	348.9	341.3	333.8	311.8
Mainly wheat growing	115.9	118.0	119.3	122.5
Mainly dairying and pig raising	96.8	101.1	110.2	109.8
Other	337.9	363.9	416.5	425.4
Total agriculture, etc.	899.5	924.2	979.7	969.5
Manufacturing	1,500.0	1,539.9	1,632.5	1,769.7
Transport, storage and communication	118.6	134.0	166.8	191.2
Finance—				
Building and housing societies	84.8	83.3	138.0	120.3
Pastoral finance companies	122.7	124.1	117.9	120.3
Hire purchase and other finance companies	117.8	161.4	223.6	242.8
Other	154.5	178.8	250.2	262.6
Total finance	479.8	547.5	729.7	746.0
Commerce—				
Retail trade	540.1	568.2	702.5	726.0
Wholesale trade	441.9	518.3	608.7	619.9
Total commerce	982.0	1,086.6	1,311.1	1,345.9
Building and construction	257.9	317.6	439.0	451.5
Other business—				
Mining	277.5	311.7	310.0	247.4
Other	730.5	925.8	1,261.7	1,367.3
Total other business	1,007.9	1,237.4	1,571.7	1,614.7
Unclassified	70.5	78.4	114.3	108.8
Total business overdraft limits	5,316.2	5,865.5	6,944.7	7,197.3
Overdraft limits of public authorities	279.4	273.0	254.0	302.4
Personal overdraft limits—				
Building or purchasing own home	421.8	495.2	625.0	713.9
Other	851.5	1,104.8	1,554.4	1,729.2
Total personal overdraft limits	1,273.3	1,599.9	2,179.4	2,443.1
Overdraft limits of non-profit organisations	146.0	147.2	164.9	168.5
Total overdraft limits of resident borrowers	7,014.8	7,885.6	9,543.0	10,111.3
Overdraft limits of non-resident borrowers	8.7	9.5	13.9	13.7
Total all overdraft limits	7,023.6	7,895.1	9,556.9	10,125.0

(a) Excludes limits in respect of temporary advances to woolbuyers, term loans and farm development loans.

MAJOR TRADING BANKS: ADVANCES(a), BY RATE OF INTEREST

(Source: Reserve Bank of Australia)

(Proportion at each rate to total—per cent)

Interest rate per annum	At about end of—			
	June 1972	December 1972	June 1973	December 1973 (b)
	5 per cent and less	5.4	7.9	5.0	} 5.3
More than 5 per cent but less than 5½ per cent	0.9	0.7	0.3	
5½ per cent	0.2	0.3	1.2	
More than 5½ per cent but less than 6 per cent	0.4	0.3	0.5	} 0.2
6 per cent	0.3	0.8	0.9	
More than 6 per cent but less than 6½ per cent	2.8	2.4	2.1	
6½ per cent	6.0	7.0	6.9	0.4
More than 6½ per cent but less than 7 per cent	4.8	4.4	3.4	0.5
7 per cent	5.5	4.9	4.5	0.6
More than 7 per cent but less than 7½ per cent	12.0	9.4	8.9	1.0
7½ per cent	8.7	7.0	7.1	1.2
More than 7½ per cent but less than 8 per cent	45.4	44.9	45.5	1.3
8 per cent	0.9	1.1	2.3	1.5
More than 8 per cent but less than 8½ per cent	1.1	1.6	2.5	1.6
8½ per cent	0.4	0.9	2.2	1.5
More than 8½ per cent but less than 9 per cent	0.4	0.8	0.9	2.5
9 per cent	0.5	1.0	1.1	17.9
More than 9 per cent but less than 9½ per cent	1.2	1.7	2.1	5.5
9½ per cent	0.8	0.6	0.9	44.7
More than 9½ per cent but less than 10 per cent	1.0	1.0	0.9	2.7
10 per cent	1.5	1.3	1.1	2.8
More than 10 per cent but less than 10½ per cent . . . . .	..	..	..	2.2
10½ per cent . . . . .	..	..	..	1.0
More than 10½ per cent but less than 11 per cent . . . . .	..	..	..	1.0
11 per cent . . . . .	..	..	..	2.6
More than 11 per cent but less than 11½ per cent . . . . .	..	..	..	0.9
11½ per cent . . . . .	..	..	..	0.5
More than 11½ per cent . . . . .	..	..	..	0.3
Total	100.0	100.0	100.0	100.0

(a) Excludes term loans, farm development loans and personal instalment loans. Comprises categories of loans specifically exempted from the prescribed maximum overdraft requirement such as, short-term mortgage and bridging loans and post-shipment wool advances subject to a disincentive rate of interest. The maximum rate chargeable on overdraft advances was fixed on 17 September 1973 at 9½ per cent on amounts of under \$50,000. For larger amounts, actual rates are a matter for negotiation between banks and their customers. (b) Percentages to June 1973 are based on figures including Papua New Guinea; from December 1973 percentages are based on figures excluding Papua New Guinea.

MAJOR TRADING BANKS: FIXED DEPOSITS(a), BY RATE OF INTEREST

(Source: Reserve Bank of Australia)

(Proportion at each rate to total—per cent)

Interest rate per annum	At about end of—			
	June 1972	December 1972	June 1973	December 1973 (b)
	Less than 4¼ per cent	4.1	0.5	} 16.1
4¼ per cent and less than 4½ per cent	10.1	18.6	10.7	
4½ per cent and less than 4¾ per cent	11.8	17.1	14.3	
4¾ per cent and less than 5 per cent	7.4	4.6	2.9	} 9.3
5 per cent and less than 5¼ per cent	19.9	14.8	18.6	
5¼ per cent and less than 5½ per cent	17.4	9.3	7.0	
5½ per cent and less than 5¾ per cent	8.7	9.4	14.1	} 6.0
5¾ per cent and less than 6 per cent	0.4	2.2	3.9	
6 per cent and less than 6¼ per cent	3.7	3.6	6.6	
6¼ per cent and less than 6½ per cent . . . . .	..	1.3	2.2	} 24.6
6½ per cent and less than 7 per cent	20.5	15.2	19.1	
7 per cent and less than 7½ per cent . . . . .	..	..	..
7½ per cent and less than 8 per cent . . . . .	..	..	..	9.6
8 per cent . . . . .	..	..	..	6.6
Total	100.0	100.0	100.0	100.0

(a) Excludes Government fixed deposits and certificates of deposit. (b) Percentages to June 1973 are based on figures including Papua New Guinea; from December 1973 percentages are based on figures excluding Papua New Guinea.

Savings banks

For information on the origin of savings banks in Australia, see Year Book No. 50, page 854, and earlier issues.

All savings banks, including trustee savings banks, but not State savings banks, are subject to the *Banking Act 1959-1973*. Details of this Act and the special provisions applying to savings banks are given in Year Book No. 46, pages 759-60.

In the tables on pages 527-8 balance sheet and profit and loss account information does not relate to a uniform accounting period but rather to the financial years of the banks which ended in the years shown. For balance dates of individual savings banks see annual bulletin *Banking and Currency* (5.1).

The number of operative accounts excludes school bank accounts and small inoperative accounts. The other sections of the tables relating to depositors' balances, etc., include school bank accounts, small inoperative accounts, investment accounts, deposit stock and non-interest bearing cheque accounts at the State Savings Bank of Victoria and the Savings Bank of South Australia, and fixed deposit accounts and non-interest bearing cheque accounts at the trustee savings banks in Tasmania.

At 30 June 1973 all savings banks were paying interest on deposits at rates of up to 5.00 per cent. For accounts other than friendly and other societies the maximum interest bearing amount in any one account was \$20,000. There is no limit on the maximum interest bearing amount for society cheque accounts. Interest rates charged on loans made by the savings banks were: housing loans—up to 7.00 per cent; other loans—up to 7.75 per cent.

At 30 June 1973 savings banks operated 5,452 branches, 2,880 of these being in the 'metropolitan areas. Savings bank facilities were also available at 14,714 agencies throughout Australia.

SAVINGS BANKS(a): LIABILITIES AND ASSETS(b)

(\$ million)

LIABILITIES

	Paid-up capital	Reserve funds (used in the business of the bank)	Balance of profit and loss account	Total shareholders' funds	Depositors' balances	Balances due to other banks	Bills payable and all other liabilities (c)	Total
1969 . . .	25.0	132.7	6.7	164.4	6,783.5	13.4	222.2	7,183.6
1970 . . .	31.0	137.4	7.3	175.7	7,161.2	14.2	236.6	7,587.7
1971 . . .	31.0	149.8	8.4	189.2	7,722.0	16.8	258.9	8,186.9
1972 . . .	31.5	171.0	8.9	211.4	8,547.1	19.2	293.9	9,071.7
1973 . . .	36.5	191.1	9.4	237.1	10,398.4	25.3	343.6	11,004.4

ASSETS

	Coin, bullion, notes and deposits with Reserve Bank	Deposits in Australia with trading banks	Australian public securities		Local and semi-government authorities	Other securities	Total
			Australian Government and States				
			Treasury bills and notes	Other securities			
1969 . . .	553.5	168.7	61.0	2,246.6	1,649.9	14.7	14.7
1970 . . .	585.1	150.8	74.7	2,232.6	1,791.9	16.5	16.5
1971 . . .	659.8	123.1	58.6	2,287.5	1,963.0	28.7	28.7
1972 . . .	906.1	188.6	39.3	2,352.5	2,171.4	36.9	36.9
1973 . . .	1,356.8	233.5	104.1	2,744.4	2,511.2	40.2	40.2

	Loans to authorised dealers in short-term money market	Cheques and bills of, and balances with and due from other banks(d)	Loans(e), advances and bills discounted	Bank premises, furniture and sites	Bills receivable and remittances in transit	All other assets	Total
1969 . . .	40.1	9.7	2,270.5	90.5	2.0	76.4	7,183.6
1970 . . .	54.1	167.8	2,337.3	98.2	0.4	78.3	7,587.7
1971 . . .	78.6	195.0	2,602.9	102.6	0.3	86.9	8,186.9
1972 . . .	55.9	212.7	2,897.7	111.5	0.1	99.0	9,071.7
1973 . . .	103.6	228.4	3,433.1	119.7	2.4	127.0	11,004.4

(a) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (b) This table relates to liabilities and assets both inside and outside Australia. (c) Includes provisions for contingencies. (d) Includes deposits with and loans to specified lenders other than trading banks. (e) Other than loans to dealers in the short-term money market.

SAVINGS BANKS(a): PROFIT AND LOSS, APPROPRIATION OF PROFITS AND DIVIDENDS

(\$ million)

	Profit and loss			Profits appropriated to—				Dividends paid and proposed
	Net earnings (b)	Ex-penses (c)	Income, land and other taxes and payments in lieu of taxes	Net profit	Reserve funds	Writing-off bank premises	Other appropriations	
1969 . . .	131.2	108.5	7.7	15.0	7.0	2.0	2.3	3.4
1970 . . .	149.6	121.4	9.6	18.6	9.9	1.9	3.0	3.2
1971 . . .	179.4	141.2	11.4	26.7	13.4	1.9	6.3	4.1
1972 . . .	213.9	165.4	14.2	34.4	19.9	2.8	7.5	5.7
1973 . . .	268.5	209.3	17.9	41.4	23.3	2.9	8.4	6.2

(a) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (b) Discount and interest earned, net exchange, commissions and other items (including transfers from contingencies accounts), after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets, and losses on realisation of assets and transfers to the credit of contingencies accounts (out of which accounts provisions for all bad and doubtful debts have been made). (c) Includes directors' fees.

SAVINGS BANKS: BUSINESS TRANSACTED IN AUSTRALIA

	Number of operative accounts	Deposits (a)	With-drawals (a)	Interest added	Depositors' balances at end of year
	'000	\$m	\$m	\$m	\$m
1968-69 . . .	14,534	9,423.8	9,154.1	215.8	6,707.1
1969-70 . . .	15,291	10,671.9	10,508.9	234.6	7,104.7
1970-71 . . .	16,019	12,324.0	12,045.7	251.6	7,634.5
1971-72 . . .	16,726	14,304.3	13,823.0	275.6	8,391.4
1972-73 . . .	17,468	18,092.3	16,561.6	315.8	10,237.9

(a) Includes inter-branch transfers.

SCHOOLS SAVINGS BANKS: AUSTRALIA

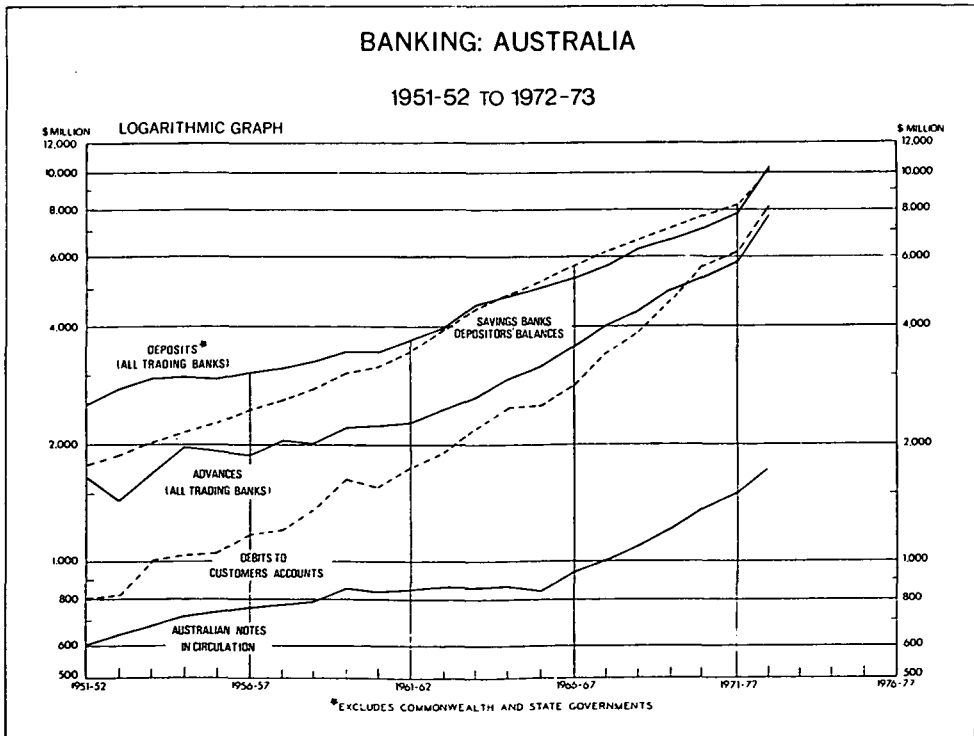
End of June—	Number of school agencies	Number of operative accounts	Depositors' balances
		'000	\$'000
1969	10,957	1,584	28,476
1970	11,042	1,600	28,079
1971	10,923	1,598	28,808
1972	10,874	1,615	26,700
1973	10,838	1,617	28,419

SAVINGS BANKS: HOUSING FINANCE TRANSACTIONS WITHIN AUSTRALIA

<i>Housing loans approved to—</i>							
<i>Individuals</i>							
	<i>Dwellings not previously occupied</i>		<i>Dwellings previously occupied</i>		<i>Alterations and additions</i>	<i>Total</i>	<i>Building societies</i>
	<i>Number(a)</i> <i>'000</i>	<i>\$m(b)</i>	<i>Number(a)</i> <i>'000</i>	<i>\$m(b)</i>	<i>\$m</i>	<i>\$m</i>	<i>\$m</i>
1968-69(c) . . .	26.1	200.7	33.8	230.9	7.5	439.1	19.5
1969-70 . . .	25.6	204.2	35.6	257.2	7.8	469.2	12.7
1970-71 . . .	27.7	237.9	40.5	320.3	9.0	567.2	16.6
1971-72 . . .	28.5	262.7	45.1	394.0	13.9	670.5	17.1
1972-73 . . .	36.4	400.4	63.4	676.2	27.7	1,104.3	24.7

	<i>Housing loans approved to individuals—</i>			<i>Balances outstanding on housing loans to—</i>		<i>Interest debited to loan</i>
	<i>Cancellation of loans previously approved(d)</i>		<i>Undrawn commitments at end of year</i>	<i>Individuals</i>	<i>Building societies</i>	<i>accounts of individuals</i>
	<i>Number(a)</i> <i>'000</i>	<i>\$m(b)</i>	<i>\$m</i>	<i>\$m(e)</i>	<i>\$m</i>	<i>\$m</i>
1968-69(c) . . .	n.a.	n.a.	105.1	1,715.2	246.3	n.a.
1969-70 . . .	3.6	26.5	114.4	1,898.3	245.3	106.9
1970-71 . . .	4.1	32.2	129.0	2,124.9	238.6	130.1
1971-72 . . .	4.2	35.3	161.0	2,392.0	227.6	144.0
1972-73 . . .	5.6	57.3	348.9	2,825.3	215.9	174.1

(a) Number of dwelling units for which first mortgage loans approved. (b) Includes second mortgage finance to complete original purchase or construction. (c) Includes details relating to the external territories. (d) Includes amounts cancelled as a result of periodic examinations by banks of undrawn commitments. (e) Includes interest debited to loan accounts.



Development banks

Commonwealth Development Bank of Australia

The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act 1959* and commenced operations on 14 January 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Under the Act the Bank is authorised to provide assistance for the development of worthwhile enterprises in the fields of primary and secondary industries, which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation and its policy is determined by the Board of that Corporation. The capital of the Development Bank consists of the capital of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank immediately prior to 14 January 1960, \$10 million provided by the Reserve Bank, \$20 million appropriated from the Consolidated Revenue Fund in 1961-62 by the *Commonwealth Banks Act 1961* and the *Commonwealth Banks Act 1962*, \$10 million appropriated in 1963-64 by the *Commonwealth Banks Act 1963*, and such other sums as are provided from the Commonwealth Development Bank Reserve Fund. The net profits of the Bank are paid to the Commonwealth Development Bank Reserve Fund, which at 30 June 1973 stood at \$34.0 million. Net profits in 1971-72 and 1972-73 amounted to \$1.5 million and \$1.5 million respectively.

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA: LIABILITIES (\$ million)

30 June—	Capital	Reserve fund	Balances due to other banks	Deposits, bills payable, all other liabilities	Total
1969 . . .	61.7	27.2	131.3	34.7	254.9
1970 . . .	61.7	29.3	142.2	32.5	265.6
1971 . . .	61.7	31.0	157.7	32.3	282.7
1972 . . .	61.7	32.5	159.8	42.0	296.0
1973 . . .	61.7	34.0	159.1	44.2	299.1

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA: ASSETS (\$ million)

30 June—	Coin, bullion, notes and cash at bankers	Australian public securities (incl. Treasury bills)	Other securities	Loans to authorised dealers in short-term money market	Cheques and bills of other banks	Loans, advances, and bills discounted	All other assets	Total
1969 . . .	0.8	1.2	0.2	..	1.5	250.2	0.9	254.9
1970 . . .	0.8	0.8	0.3	..	1.7	261.0	1.0	265.6
1971 . . .	0.8	0.7	0.2	..	1.9	277.8	1.2	282.7
1972 . . .	0.9	0.5	..	0.8	2.3	290.4	1.0	296.0
1973 . . .	0.6	2.0	..	1.2	2.7	291.5	1.1	299.1

Australian Resources Development Bank Limited

The Australian Resources Development Bank Limited was established in 1967 with equity capital of \$3 million subscribed by the major trading banks. It was given the status of a bank by the *Banking Act 1967* and opened for business on 29 March 1968. The main object of the Australian Resources Development Bank is to assist Australian enterprises to participate more fully in the development of Australia's natural resources. It provides finance to enterprises engaged in major developmental projects by direct loans, investing in equity capital or by refinancing loans made by trading banks acting individually or as a group. The Australian Resources Development Bank obtains funds by accepting deposits and by borrowing on the Australian and overseas capital markets.

AUSTRALIAN RESOURCES DEVELOPMENT BANK LIMITED: LIABILITIES
(\$ million)

30 September—	Capital	Reserve fund	Balances due to other banks	Deposits, bills payable, all other liabilities	Total
1970 . . .	3.0	0.5	27.7	163.6	194.8
1971 . . .	3.0	1.3	42.3	256.6	303.1
1972 . . .	3.0	2.8	53.8	304.4	364.0
1973 . . .	3.0	4.0	49.5	283.8	340.3

AUSTRALIAN RESOURCES DEVELOPMENT BANK LIMITED: ASSETS
(\$ million)

30 September—	Coin, bullion, notes and cash at bankers	Australian public securities (incl. Treasury bills)	Other securities	Loans to authorised dealers in short-term money market	Cheques and bills of other banks	Loans, advances, and bills discounted	All other assets	Total
1970 . . .	..	0.2	..	3.0	187.3	3.1	1.1	194.8
1971 . . .	0.1	0.2	0.1	9.4	283.6	6.2	3.4	303.1
1972 . . .	..	0.2	0.3	10.0	326.5	15.5	11.5	364.0
1973 . . .	..	0.1	0.3	12.2	305.2	12.1	10.3	340.3

INSURANCE

Legislation

Section 51 of the Commonwealth Constitution confers the necessary powers on the Australian Parliament to legislate with respect to 'insurance other than State insurance; also State insurance extending beyond the limits of the State concerned'. Commonwealth legislation includes the *Marine Insurance Act 1909-1973* defining the limits of marine insurance and regulating the terms of contracts, etc., the *Insurance (Deposits) Act 1932-1973* requiring the lodgment of deposits by insurance companies, and the *Life Insurance Act 1945-1973* generally regulating life insurance business in Australia. The *Marine Insurance Act 1909-1973* and the *Insurance (Deposits) Act 1932-1973* have limited application, and except for life insurance business, which is regulated by the *Life Insurance Act 1945-1973*, insurance business is conducted almost entirely under State laws.

Insurance (Deposits) Act 1932-1973

Companies, persons or associations of persons carrying on insurance business in Australia or in any Territory of Australia are required to lodge a deposit with the Australian Government Treasurer. Money deposited is invested by the Treasurer in prescribed securities selected by the depositor and all interest is paid to depositors. Deposits remain as security against liability to policy holders and are available to satisfy judgments obtained in respect of policies. Deposits held by States on 1 February 1932 could, however, remain with the States subject to the conditions embodied in the laws of the States, and depositors to the extent of the value of these deposits were exempt from liability to make deposits under the Commonwealth Act.

The following are not regarded as insurance business under the Act: staff superannuation schemes; schemes of religious organisations solely for insurance of their property; friendly society, union and association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and under the *Life Insurance Act 1945-1973* ceased to apply to life insurance business.

Life Insurance Act 1945-1973

The objects of this Act are: (a) to replace all State legislation on the subject of life insurance, except that relating to the life insurance operations of State Government insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia; (b) to appoint an Insurance Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy holders; (c) to set up adequate

machinery for dealing with any company that fails to maintain a required minimum standard of solvency. The Act came into operation on 20 June 1946. A summary of the provisions of the Act is given in Year Book No. 37, pages 595-7. The Insurance Commissioner issues an annual report which contains detailed information on the operations of life insurance companies.

Deposits under Insurance Acts

Deposits lodged under the Insurance Acts at 30 June 1973 totalled \$43.0 million, comprising \$5.1 million held by the Australian Government in respect of life insurance, and \$38.0 million held by the Australian Government in respect of other forms of insurance. The deposits consisted of Australian Government securities \$24.4 million, United Kingdom Government securities \$2.0 million, fixed deposits \$1.4 million, bank guarantees and undertakings \$12.2 million, corporation debentures and stock \$0.9 million, titles and mortgages \$1.9 million, and other securities \$0.2 million.

Life insurance

Since 1947, returns lodged under the *Life Insurance Act 1945-1973* have been used to compile life insurance statistics. The statistics included in the following tables relate to the Australian and overseas business of companies with head offices in Australia together with the Australian business of companies with head offices overseas. Unless otherwise stated, life insurance business in Australia excludes life insurance business in Papua New Guinea. The information shown has been compiled from returns of life insurance business submitted in the financial years which ended during the year stated.

Offices transacting business

The number of companies which transacted life insurance business in Australia during 1972 was 49. Of these, 35 were companies incorporated outside Australia or were subsidiaries of such companies. Nine companies, including 4 incorporated outside Australia, were mutual companies. All companies conducted ordinary business and 46 conducted superannuation business. Industrial business was conducted by 10 companies, all of which also conducted superannuation business. In addition two State Government institutions conduct life insurance business only in their own State.

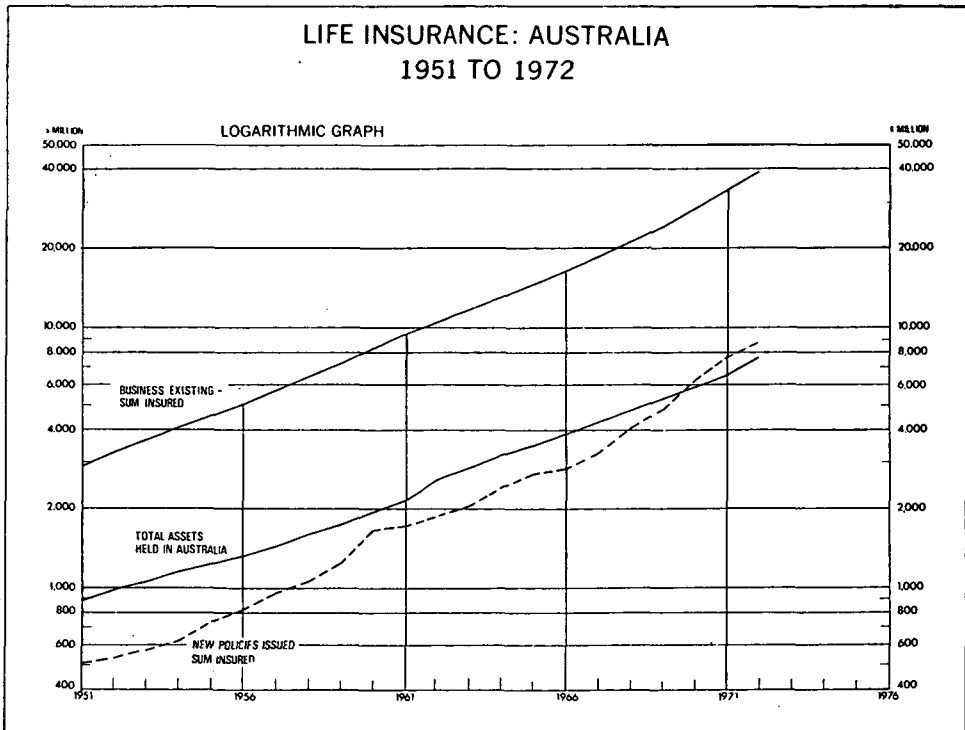


PLATE 38

LIFE INSURANCE: SUMMARY, AUSTRALIA

	Insurance and endowment policies			Annuity policies	
	Number of policies	Sum insured (\$ million)	Annual premiums (\$ million)	Number of policies	Annuitties per annum (\$ million)
ORDINARY BUSINESS					
New policies issued—					
1968(a)	436,928	2,606.6	59.1	95	0.1
1969	464,062	3,088.4	65.7	109	0.1
1970	504,613	3,777.9	75.3	55	0.1
1971	569,370	4,882.6	91.5	66	0.1
1972	575,650	5,489.0	100.4	74	0.1
Policies discontinued or reduced(b)—					
1968(a)	258,639	799.7	18.2	186	0.1
1969	248,906	974.3	20.3	181	0.1
1970	273,765	1,153.2	24.5	204	0.1
1971	293,710	1,510.0	28.3	109	..
1972	324,374	1,878.9	34.0	91	..
Policies existing at end of—					
1968(a)	4,529,853	14,823.0	370.1	2,177	1.1
1969	4,676,164	16,806.1	411.7	2,065	1.3
1970	4,907,012	19,430.8	462.6	1,951	1.1
1971	5,182,672	22,803.4	525.7	1,906	1.1
1972	5,433,948	26,413.5	592.2	1,889	1.2
INDUSTRIAL BUSINESS					
New policies issued					
1968(a)	132,504	145.7	5.8	..	..
1969	139,360	165.0	6.5	..	..
1970	138,647	198.5	7.3	..	..
1971	135,384	231.4	8.0	..	..
1972	133,700	255.3	8.7	..	..
Policies discontinued or reduced(b)—					
1968(a)	174,576	86.3	3.7	..	..
1969	169,892	91.1	3.8	..	..
1970	168,600	100.6	4.1	..	..
1971	165,067	115.0	4.5	..	..
1972	215,164	142.4	5.3	..	..
Policies existing at end of—					
1968(a)	2,561,106	1,040.6	42.4	..	..
1969	2,530,386	1,114.4	45.1	..	..
1970	2,500,433	1,212.3	48.3	..	..
1971	2,470,750	1,328.7	51.8	..	..
1972	2,389,286	1,441.5	55.2	..	..
SUPERANNUATION BUSINESS					
New policies issued—					
1968(a)	89,085	1,328.1	33.1	83	6.3
1969	94,771	1,591.6	41.7	64	5.0
1970	74,334	2,298.6	58.8	60	10.6
1971	78,005	2,785.3	72.4	45	12.9
1972	86,394	2,973.7	78.8	59	14.6
Policies discontinued or reduced(b)—					
1968(a)	67,338	539.8	14.3	60	7.0
1969	114,664	709.1	17.7	43	7.8
1970	126,552	940.0	26.5	33	4.5
1971	87,206	1,129.0	29.4	28	4.7
1972	67,696	1,319.0	32.9	43	7.1
Policies existing at end of—					
1968(a)	721,482	5,533.7	154.2	928	28.1
1969	752,302	6,439.2	179.2	950	25.4
1970	699,652	7,797.8	211.5	977	31.4
1971	690,451	9,454.2	254.5	980	39.6
1972	709,149	11,108.9	300.5	996	47.0

(a) Includes life insurance business in Papua New Guinea. (b) Includes policies matured, surrendered, forfeited, transferred to overseas registers, converted to other classes of business, etc.

**LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED IN AUSTRALIA
BY CAUSE OF DISCONTINUANCE OR REDUCTION(a)(b)**

	<i>Events provided for in policy*</i>							<i>Total</i>
	<i>Death</i>	<i>Maturity</i>	<i>Other (including expiry)</i>	<i>Sur- render</i>	<i>For- feiture</i>	<i>Transfer</i>	<i>Other causes</i>	
ORDINARY BUSINESS								
Number of policies—								
1968(c)	22,532	70,339	2,903	104,415	60,504	-1,967	-87	258,639
1969	21,957	69,445	3,577	107,713	55,885	-2,385	-7,286	248,906
1970	23,047	73,132	4,241	121,917	65,380	-1,786	-12,166	273,765
1971	23,138	75,516	4,654	128,879	68,741	-1,442	-5,776	293,710
1972	23,630	79,432	4,947	145,473	73,395	-1,826	-777	324,274
Sum insured (\$'000)—								
1968(c)	46,144	52,568	92,477	309,793	315,594	-6,543	-10,340	799,694
1969	48,298	55,046	165,033	425,186	291,956	-9,737	-1,503	974,278
1970	54,235	63,201	158,407	506,645	394,872	-8,346	-15,845	1,153,169
1971	61,606	69,738	217,410	731,739	465,615	-5,990	-30,130	1,509,988
1972	65,541	77,812	261,881	929,600	572,708	-12,765	-15,843	1,878,934
INDUSTRIAL BUSINESS								
Number of policies—								
1968(c)	12,689	58,945	7,370	61,374	34,460	-255	-7	174,576
1969	11,947	67,716	..	55,481	34,861	-133	21	169,893
1970	12,554	69,069	-1	52,432	34,610	40	-104	168,600
1971	13,745	65,575	..	50,901	34,879	-26	-7	165,067
1972	12,267	112,636	..	51,941	38,281	51	-12	215,164
Sum insured (\$'000)—								
1968(c)	2,843	8,640	1,524	31,937	41,457	-96	9	86,314
1969	2,800	10,760	..	32,307	45,247	-22	1	91,095
1970	3,152	11,236	..	34,841	51,316	54	18	100,617
1971	3,673	12,199	62	37,226	61,855	6	21	115,042
1972	3,378	20,218	112	42,803	75,768	113	1	142,393
SUPERANNUATION BUSINESS								
Number of policies—								
1968(c)	3,390	7,806	103	36,881	1,447	-11	17,722	67,338
1969	3,881	8,381	185	48,870	1,471	9	51,867	114,664
1970	3,661	9,193	181	53,065	1,655	5	58,792	126,552
1971	3,712	8,938	632	44,651	1,535	-9	27,749	87,208
1972	3,854	8,994	188	33,144	1,596	5	19,915	67,696
Sum insured (\$'000)—								
1968(c)	16,659	17,330	44,596	341,571	22,172	-92	97,566	539,802
1969	19,058	18,639	53,617	430,440	19,024	-31	168,389	709,136
1970	23,053	23,573	72,008	605,648	21,848	-1,063	194,976	940,043
1971	25,471	30,083	148,506	708,678	24,752	2,076	189,383	1,128,950
1972	29,088	36,706	151,451	811,420	22,384	-495	268,450	1,319,005

(a) Excludes annuities. (b) See footnote (b) on page 533. (c) Includes life insurance business in Papua New Guinea. Minus sign (-) denotes an increase in existing business due to an excess of transfers from overseas registers to Australian registers, or conversions from other classes of business over discontinuances.

LIFE INSURANCE: REVENUE FROM PREMIUMS, AUSTRALIA
(\$'000)

	<i>Ordinary business</i>		<i>Industrial business</i>	<i>Superannuation business</i>		<i>Total, all business combined</i>
	<i>Insurance and endowment premiums</i>	<i>Con-sideration for annuities</i>	<i>Insurance and endowment premiums</i>	<i>Insurance and endowment premiums</i>	<i>Con-sideration for annuities</i>	
1968(a)	371,941	1,132	40,716	165,530	9,893	589,212
1969	415,622	1,293	42,975	186,855	9,768	656,514
1970	469,329	675	45,983	222,331	11,967	750,286
1971	541,713	620	49,196	258,366	13,259	863,154
1972	610,063	1,005	52,514	306,880	26,359	996,821

(a) Includes life insurance business in Papua New Guinea.

LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS, AUSTRALIA
(\$'000)

	<i>Claims</i>	<i>Surrenders</i>	<i>Annuities</i>	<i>Cash bonuses</i>	<i>Total</i>
ORDINARY BUSINESS					
1968(a)	128,307	46,235	949	1,280	176,771
1969	139,743	53,525	977	1,338	195,583
1970	159,357	67,028	994	1,487	228,867
1971	180,920	81,511	995	1,607	265,031
1972	197,647	97,717	1,110	1,720	298,195
INDUSTRIAL BUSINESS					
1968(a)	14,757	6,590	..	1	21,348
1969	15,913	6,614	..	1	22,529
1970	17,499	6,953	..	..	24,453
1971	19,107	7,561	..	..	26,667
1972	30,907	8,307	..	..	39,214
SUPERANNUATION BUSINESS					
1968(a)	40,437	33,854	2,694	1,207	78,192
1969	44,828	42,864	3,159	1,003	91,853
1970	57,665	55,199	3,077	998	116,941
1971	66,589	62,848	4,012	1,109	134,557
1972	80,336	68,656	5,196	1,589	155,775

(a) Includes life insurance business in Papua New Guinea.

LIFE INSURANCE: TOTAL REVENUE
(\$'000)

<i>Australia and overseas</i>							
	<i>Insurance and endowment premiums</i>	<i>Con- sideration for annuities granted</i>	<i>Net interest dividends and rents</i>	<i>All other revenue</i>	<i>Total revenue</i>		
					<i>Australia (a)</i>	<i>Overseas</i>	
ORDINARY BUSINESS							
1968	491,446	10,794	225,001	43,544	572,737	198,047	
1969	545,681	10,730	250,938	39,431	635,488	211,294	
1970	610,678	10,299	279,643	50,724	719,140	232,204	
1971	695,185	11,860	315,409	58,467	828,437	252,485	
1972	771,364	12,596	347,559	88,294	940,024	279,789	
INDUSTRIAL BUSINESS							
1968	44,915	..	21,995	1,848	62,196	6,561	
1969	47,269	..	23,946	1,202	65,563	6,855	
1970	50,377	..	26,701	1,335	71,325	7,087	
1971	53,770	..	27,904	2,739	77,024	7,390	
1972	57,142	..	29,955	3,921	83,428	7,589	
SUPERANNUATION BUSINESS							
1968	174,697	11,141	63,180	12,706	247,003	14,721	
1969	197,456	11,237	71,974	13,913	278,294	16,284	
1970	233,518	13,825	83,331	28,026	339,175	19,525	
1971	271,748	16,389	94,313	38,179	399,178	21,449	
1972	322,831	30,945	109,191	95,283	531,934	26,315	

(a) Includes life insurance business in Papua New Guinea.

LIFE INSURANCE: TOTAL EXPENDITURE
(\$'000)

<i>Australia and overseas</i>								
	<i>Claims and annuities paid</i>	<i>Surrenders</i>	<i>Cash bonuses paid to policy-holders</i>	<i>Com- mission</i>	<i>Other expenses of manage- ment</i>	<i>All other expendi- ture</i>	<i>Total expenditure</i>	
							<i>Australia (a)</i>	<i>Overseas</i>
ORDINARY BUSINESS								
1968	186,897	62,942	2,088	50,812	55,574	87,503	273,542	172,273
1969	202,122	74,582	2,260	59,152	62,856	29,663	309,235	121,400
1970	228,462	88,708	2,464	68,885	72,105	29,093	360,745	128,971
1971	252,679	105,049	2,616	84,356	87,701	35,986	428,482	139,902
1972	268,354	123,128	2,647	94,221	99,149	48,669	484,574	151,596
INDUSTRIAL BUSINESS								
1968	16,445	7,211	1	6,383	7,224	5,629	35,852	7,042
1969	18,476	7,256	1	6,818	7,797	2,720	38,306	4,762
1970	20,104	7,620	..	7,557	8,682	2,060	41,099	4,926
1971	21,635	8,224	..	8,620	10,281	2,725	46,262	5,222
1972	35,136	9,037	..	9,295	11,051	3,364	60,083	7,800
SUPERANNUATION BUSINESS								
1968	46,784	35,767	1,288	6,375	13,689	18,008	114,323	7,588
1969	51,483	45,719	1,088	6,936	14,826	26,830	138,032	8,850
1970	64,936	58,608	1,069	8,019	17,181	55,262	192,669	12,406
1971	75,329	66,839	1,187	9,329	20,368	61,664	222,771	11,947
1972	90,539	72,850	1,651	10,250	22,699	66,736	252,413	12,310

(a) Includes life insurance business in Papua New Guinea.

LIFE INSURANCE: LIABILITIES, AUSTRALIA AND OVERSEAS, 1972
(\$ million)

	<i>Life insurance business</i>	<i>Other classes of business</i>	<i>Total liabilities</i>
Shareholders' capital—			
Authorised . . . . .	..	73.8	73.8
<i>Less un-issued</i> . . . . .	..	38.9	38.9
Subscribed capital . . . . .	..	34.9	34.9
Paid-up—			
In money . . . . .	..	24.7	24.7
Otherwise than in money . . . . .	..	9.5	9.5
Total paid-up capital . . . . .	..	34.2	34.2
Life insurance statutory funds—			
Ordinary business	6,041.0	..	6,041.0
Industrial business	525.0	..	525.0
Superannuation business	1,866.3	..	1,866.3
Total statutory funds	8,432.3	..	8,432.3
Funds in respect of other classes of business . . . . .	..	47.0	47.0
General reserves	71.5	29.4	100.9
Profit and loss account balance . . . . .	..	8.8	8.8
Total shareholders' capital, insurance funds and reserves	8,503.8	119.4	8,623.2
Other liabilities—			
Deposits	56.6	13.5	70.1
Staff provident and superannuation funds	1.9	3.6	5.5
Claims admitted or intimated but not paid	84.1	28.3	112.4
Premiums paid in advance and in suspense	9.0	0.2	9.2
Sundry creditors	47.0	3.9	50.9
Bank overdraft	53.0	0.3	53.3
Reserves and provisions for taxation	60.7	5.5	66.2
All other liabilities	13.7	21.0	34.7
Grand total	8,829.8	195.6	9,025.4

LIFE INSURANCE(a): ASSETS HELD IN AUSTRALIA(b)
(\$ million)

	1968	1969	1970	1971	1972
Freehold and leasehold property	501.0	636.6	761.6	948.3	1,164.7
Government and municipal securities	1,536.2	1,665.5	1,819.3	2,052.5	2,329.5
Other investments	1,241.3	1,408.7	1,578.4	1,727.8	1,961.7
Loans on mortgage	1,108.9	1,188.3	1,235.4	1,252.9	1,271.5
Loans on companies' policies	174.4	195.5	223.0	251.8	267.8
Other loans	54.1	57.8	57.1	60.3	62.3
All other assets	177.2	201.2	236.3	270.3	311.4
Total	4,793.1	5,353.8	5,911.1	6,563.8	7,369.0

(a) Includes other classes of business. (b) Includes Papua New Guinea.

LIFE INSURANCE: ASSETS, AUSTRALIA AND OVERSEAS, 1972
(\$'000)

	<i>Australia(a)</i>			<i>Australia and overseas</i>		
	<i>Life insurance business</i>	<i>Other classes of business</i>	<i>Total</i>	<i>Life insurance business</i>	<i>Other classes of business</i>	<i>Total</i>
Fixed assets—						
Freehold and leasehold property, office premises	1,157.8	6.8	1,164.7	1,359.5	6.8	1,366.3
Furniture, etc.	12.4	1.2	13.6	14.3	1.2	15.5
<i>Total fixed assets</i>	<i>1,170.2</i>	<i>8.0</i>	<i>1,178.2</i>	<i>1,373.8</i>	<i>8.0</i>	<i>1,381.8</i>
Loans—						
On mortgage	1,255.6	15.9	1,271.5	1,654.1	16.0	1,670.1
On policies of the company	267.8	..	267.8	335.5	..	335.5
Other loans	52.0	10.3	62.3	59.6	10.3	69.9
<i>Total loans</i>	<i>1,575.4</i>	<i>26.2</i>	<i>1,601.6</i>	<i>2,049.3</i>	<i>26.3</i>	<i>2,075.6</i>
Investments—						
Government securities—						
Australia	1,656.2	11.8	1,668.0	1,662.0	11.8	1,673.8
Other	10.7	0.2	10.9	406.7	1.2	407.9
Securities of local and semi-government bodies	646.0	4.5	650.5	756.7	4.6	761.3
Other investments	1,863.9	97.9	1,961.7	2,273.4	98.8	2,372.2
<i>Total investments</i>	<i>4,176.8</i>	<i>114.4</i>	<i>4,291.2</i>	<i>5,098.8</i>	<i>116.5</i>	<i>5,215.3</i>
Cash on deposit, current account and in hand	32.2	20.4	52.6	39.7	20.9	60.6
Other assets(b)	221.7	23.5	245.2	268.3	23.9	292.2
Grand total	7,176.4	192.6	7,369.0	8,829.8	195.6	9,025.4

(a) Includes Papua New Guinea. (b) Includes advances of premiums.

LIFE INSURANCE COMPANIES: NEW LOANS PAID OVER(a), BY CLASS OF SECURITY AND STATE OR TERRITORY
(\$'000)

	1969	1970	1971	1972	1973
Class of security—					
Mortgage of real estate	187,498	156,544	157,459	132,958	176,645
Companies' policies	48,482	60,920	65,571	58,448	50,839
Other	8,049	12,439	10,380	19,497	33,983
State or Territory(b)—					
New South Wales	100,726	88,551	104,057	90,048	109,253
Victoria	68,576	68,632	61,711	59,671	83,239
Queensland	24,672	24,144	21,633	24,065	23,868
South Australia(c)	17,492	16,456	18,307	13,526	18,973
Western Australia	23,965	22,341	19,588	13,189	13,193
Tasmania	6,418	6,081	4,688	4,425	4,560
Australian Capital Territory	2,178	3,698	3,425	5,977	8,382
Total	244,029	229,903	233,410	210,904	261,468

(a) Excludes advances of premiums. (b) State or Territory of location of mortgage, registration of policy or residence of borrower. (c) Includes Northern Territory.

Fire, marine and general insurance

The following statistics, which are in respect of the Australian business of companies operating in Australia and State Government insurance offices, conform to the following definitions and should be interpreted accordingly.

- (a) *Premiums* represent the full amount receivable in respect of policies issued or renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from 'earned premium income' appropriate to the year. In recent years, as the volume of premiums receivable has been increasing, the figures shown in the tables are greater than the premiums earned by insurers.
- (b) *Claims* comprise payments made during the year, plus the estimated amount of outstanding claims at the end of the year, less the estimated amount of outstanding claims at the beginning of the year. Salvage and other amounts recoverable have been deducted.
- (c) *Contributions to fire brigades, commission and agents' charges, and expenses of management* are mainly charges paid during the year.
- (d) *Taxation* is mainly payments made during the year, and includes income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The figures relate to selected items of statistics and are not construable as 'Profit and Loss' statements or 'Revenue Accounts'.

During 1972-73 revenue from premiums amounted to \$1,322.7 million, and that from net interest on investments, etc., to \$94.7 million, a total of \$1,417.4 million. Expenditure on claims amounted to \$903.5 million, contributions to fire brigades \$34.8 million, commission and agents' charges \$105.4 million, expenses of management \$216.8 million, and taxation \$38.2 million, a total of \$1,298.7 million.

FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS BY PRINCIPAL CLASS OF RISK, AUSTRALIA

(\$'000)

Class of risk	1968-69	1969-70	1970-71	1971-72	1972-73
PREMIUMS (LESS RETURNS, REBATES AND BONUSES)					
Fire	106,045	115,332	125,912	143,598	152,073
Householders' comprehensive	54,619	63,036	72,198	85,006	102,249
Loss of profits	13,691	15,206	18,939	22,612	25,115
Hailstone(a)	7,455	5,242	4,531	4,420	4,178
Marine	34,059	40,317	48,172	50,580	53,332
Motor vehicle—					
Compulsory third party	127,593	143,903	157,814	171,740	183,026
Other	205,171	226,819	252,225	300,342	329,932
Workers' compensation(b)	149,197	164,574	181,792	236,546	291,248
Personal accident	28,465	32,080	36,559	42,638	45,556
Burglary	13,586	14,995	16,382	18,726	19,537
All other	59,713	69,845	86,610	107,477	116,414
Total	799,593	891,351	1,001,134	1,183,686	1,322,661
CLAIMS (LESS AMOUNTS RECOVERABLE)					
Fire	48,769	54,498	58,559	68,722	72,352
Householders' comprehensive	19,871	21,159	24,060	33,996	40,449
Loss of profits	5,397	4,488	5,040	3,968	8,656
Hailstone(a)	2,531	5,635	3,510	4,514	2,411
Marine	21,323	23,008	25,238	25,333	25,049
Motor vehicle—					
Compulsory third party	118,639	147,584	152,056	182,865	209,223
Other	148,810	172,031	186,673	217,932	223,364
Workers' compensation(b)	106,618	117,435	126,850	165,021	245,008
Personal accident	11,757	13,376	15,224	16,705	19,415
Burglary	7,460	8,121	8,844	10,618	9,740
All other	27,400	32,244	39,999	44,639	47,822
Total	518,575	599,580	646,052	774,314	903,489

(a) Excludes hailstone insurance in Tasmania which is included in 'All other'.
workers' compensation insurance in coal-mining industry in New South Wales.

(b) Excludes

Export Payments Insurance Corporation

The Export Payments Insurance Corporation was established under the *Export Payments Insurance Corporation Act 1956* to provide exporters with insurance against risks associated with overseas trade. For further information on the Corporation see Chapter 11, Overseas Transactions.

EXPORT PAYMENTS INSURANCE CORPORATION: BUSINESS

	1968-69	1969-70	1970-71	1971-72	1972-73
Commercial business—					
Policies and guarantees No.	746	809	941	1,037	1,113
Face value of policies current \$'000	298,829	343,064	511,105	621,955	671,400
Maximum contingent liability "	158,966	190,067	301,061	375,358	407,192
Premium income "	730	861	1,025	1,602	2,295
Operating costs "	426	516	585	686	830
Claims paid (gross) "	388	353	939	422	807
Recoveries "	263	212	693	165	114
Underwriting reserve "	1,897	2,401	2,997	4,023	5,560
National interest and warehousing business—					
Policy holders No.	1	2	4	13	14
Face value of policies current \$'000	1,208	2,420	63,793	208,292	151,200
Maximum contingent liability "	1,087	2,183	42,487	126,232	88,341
Overseas investment insurance—					
Policies No.	41	56	78	96	107
Face value of policies \$'000	19,813	19,505	44,535	47,636	51,800
Maximum contingent liability "	17,832	17,555	40,081	42,872	46,659

PENSION AND SUPERANNUATION SCHEMES

Government, local government and semi-government pension and superannuation schemes

The Australian and all State Governments have established pension and superannuation schemes for their employees. These schemes are operated through funds to which both the Governments and their employees make contributions. Employees of local government and semi-government authorities are covered either by the Australian and State Government schemes or by a separate scheme of the authority which is operated either through a separately constituted fund or through a life insurance office.

Schemes operated through separately constituted funds

GOVERNMENT, LOCAL GOVERNMENT, AND SEMI-GOVERNMENT PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH SEPARATELY CONSTITUTED FUNDS

	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions—					
Employees	114,091	132,813	157,973	193,643	214,773
Employing authorities	136,782	148,445	171,918	219,658	238,036
Interest, dividends and rent	82,002	93,444	104,889	125,872	145,573
Transfers . . . . .	..	..	..	29	1,149
Other income	10,278	10,663	12,734	9,000	13,238
Total income	343,153	385,364	447,513	548,202	612,769
Expenditure—					
Pensions	130,658	144,350	161,177	193,999	216,060
Lump sum payments—					
On retirement, death, resignation or dismissal(a)	40,818	72,509	69,334	88,725	95,785
Gratuities	3,446	4,496	4,459	4,124	3,900
Other expenditure	14,472	14,408	15,877	14,182	16,610
Total expenditure	189,394	235,764	250,847	301,029	332,355
Assets at end of year—					
Cash—					
Deposits with Treasury	44,159	48,894	60,270	65,649	80,360
Other deposits and cash	11,283	17,503	31,676	29,271	28,994
Australian Government securities	142,401	143,093	166,125	188,465	208,969
Local and semi-government securities	920,929	1,004,392	1,077,769	1,192,368	1,284,863
Mortgages—					
Housing	34,073	37,903	39,619	44,159	48,561
Other	129,696	169,201	220,878	286,690	383,284
Loans to building societies	33,081	34,370	34,893	52,775	48,220
Company shares, debentures and notes	106,770	122,007	121,518	158,406	218,081
Other assets	110,771	108,474	129,961	152,154	168,968
Total assets(b)	1,533,162	1,685,838	1,882,708	2,169,936	2,470,300
Less Sundry creditors, etc.	19,056	22,132	22,335	32,162	52,111
Accumulated funds(b)	1,514,106	1,663,707	1,860,373	2,137,775	2,418,189
Contributors at end of year	No. 595,158	No. 598,738	No. 598,804	No. 689,113	No. 705,016
Pensioners at end of year—					
Ex-employees	68,650	71,078	70,620	74,861	78,360
Widows	30,607	31,892	30,606	39,960	44,168
Children	6,494	6,903	6,906	7,559	7,680

(a) Includes refunds of contributions to continuing members of the State Superannuation Fund in South Australia.

(b) Includes assets of the Voluntary Savings Scheme

Schemes operated through life insurance offices

LOCAL GOVERNMENT AND SEMI-GOVERNMENT PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH LIFE INSURANCE OFFICES

	1968-69	1969-70	1970-71	1971-72	1972-73
Income—					
Contributions—					
Employees \$'000	8,462	11,158	12,985	11,187	11,259
Employing authorities \$'000	10,866	14,595	17,782	15,042	15,929
Contributors at end of year No.	75,162	83,430	91,429	62,322	62,332

Parliamentary pension and superannuation schemes

Pension and superannuation schemes have been established for members of the Australian and State Parliaments. All the schemes are operated through funds to which the members of Parliament and the Australian or State Governments contribute.

PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES(a)

	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions—					
Members	530	608	657	767	855
Government	648	1,084	1,322	1,386	1,820
Interest and other income	326	433	400	456	482
Total income	1,503	2,125	2,379	2,608	3,158
Expenditure—					
Pension payments	1,046	1,199	1,395	1,599	1,778
Other	68	400	294	259	1,102
Total expenditure	1,114	1,599	1,690	1,858	2,880
Assets at end of year—					
Cash—					
Deposits with Treasury	124	147	86	188	368
Other deposits and cash	10	54	34	192	113
Australian Government securities	901	947	1,005	1,064	1,034
Local government and semi-government securities	3,872	4,083	4,344	4,511	4,655
Other assets	871	1,093	1,522	1,778	1,853
Total assets	5,779	6,323	6,991	7,734	8,024
Less Sundry creditors, etc.	25	43	21	13	25
Accumulated funds	5,754	6,280	6,970	7,720	7,999
	No.	No.	No.	No.	No.
Contributors at end of year—					
Males	648	658	656	717	718
Females	11	10	9	15	15
Pensioners at end of year—					
Ex-members	269	294	304	280	312
Widows(b)	202	200	213	215	215

(a) Includes the Ministerial Retiring Allowances Fund. (b) Includes children in receipt of Australian Parliamentary pensions.

Coal and oil-shale mine workers' superannuation schemes

In all States except South Australia superannuation schemes have been established for coal and oil-shale mine workers. These schemes are operated through funds to which mine workers, mine owners and the State Governments contribute.

COAL AND OIL-SHALE MINE WORKERS' SUPERANNUATION SCHEMES^(a)

	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions	5,959	6,016	6,664	7,473	7,668
Interest, dividends, rent and other income	1,272	1,369	1,447	1,530	1,597
Total income	7,231	7,386	8,111	9,003	9,265
Expenditure—					
Pensions and lump sum payments	5,289	5,953	7,360	7,987	7,749
Other	170	176	210	330	282
Total expenditure	5,458	6,129	7,570	8,317	8,031
Assets at end of year—					
Local government and semi-government securities	22,943	23,791	24,227	25,074	25,961
Other assets	1,285	1,698	1,884	1,688	2,080
Total assets	24,228	25,488	26,111	26,761	28,041
Less Sundry creditors, statutory reserve funds, etc.	59	64	144	109	154
Accumulated funds	24,168	25,425	25,967	26,652	27,887
	No.	No.	No.	No.	No.
Number of contributions at end of year	16,404	17,276	18,697	18,970	18,742
Number of pensioners at end of year	11,505	11,648	11,770	11,657	11,976

(a) Operating in all States except South Australia.

Private superannuation, pension and retiring allowance schemes

In 1955-56, 1960-61, 1961-62 and 1962-63 the Bureau conducted sample surveys of pension and retiring allowance schemes in private businesses subject to pay-roll tax, other than in rural industries, private domestic service, and certain businesses such as accountants, trade associations, consultant engineers, etc. Australian Government airlines and banks were included where they had established their own funds separately from the Australian Government superannuation funds, but statutory coal miners' pension funds were excluded. Details were asked for three types of pension and retiring allowance schemes. They were (a) schemes operated through life insurance offices, (b) schemes operated through separately constituted funds, and (c) direct payments of pensions and retiring allowances.

The results of the 1955-56 survey are available in *Finance Bulletin No. 47, Part I—Public and Private Finance*, and the 1960-61, 1961-62 and 1962-63 survey results were published in *Insurance and Other Private Finance, Bulletin No. 2 and Year Book No. 51* (pages 898-900).

For the years 1956-57 to 1958-59, 1963-64 and 1964-65, information was collected from a small number of the larger separately constituted funds. Although only a small number of funds was included in these collections they accounted, in 1962-63, for about 27 per cent of the income, 28 per cent of the expenditure and about 34 per cent of the total assets of the separately constituted funds covered by the more comprehensive sample survey conducted for 1962-63.

Information for these selected funds for the years 1955-56, 1960-61, 1961-62 and 1962-63 was extracted from the returns obtained in the sample surveys conducted for those years and results of the survey for 1964-65, together with comparative figures for previous years, were published in April 1966 in a mimeographed bulletin.

In order to improve the coverage of the published statistics of private pension funds, returns were collected from some additional funds for 1964-65 and tabulated with the returns from the survey for 1964-65 referred to above. The separately constituted private pension funds included in the enlarged 1964-65 survey together accounted, in 1962-63, for about 72 per cent of the total contributions, 71 per cent of the income, 68 per cent of the expenditure and 77 per cent of the assets of the separately constituted funds covered by the more comprehensive sample survey conducted for 1962-63. The results of the enlarged 1964-65 survey were published in September 1966 in a mimeographed bulletin.

Further surveys, relating to the same funds that were included in the enlarged 1964-65 survey of selected private pension funds, have been made in respect of each year from 1965-66 to 1972-73 inclusive. Since the *Survey of Selected Private Pension Funds* for 1972-73 is not a representative sample it is not known to what extent their share of the whole field has changed since the 1962-63 survey; nor is the pattern of income, expenditure and asset distribution of the large funds included in this survey necessarily representative of the whole field.

The statistics do not relate to uniform accounting periods but to the financial years of the funds which ended in the years shown.

**SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: INCOME
AND EXPENDITURE**
(\$ million)

INCOME							
	Employees' contri- butions	Employers' contri- butions	Interest on Aust. Govt local and semi-govern- ment securities	Other interest, dividends and rent	Profit from sale or revaluation of assets	Other income(a)	Total income
1968-69 . . .	32.3	59.8	22.4	37.4	18.7	7.0	177.7
1969-70 . . .	36.2	69.9	24.3	43.0	5.1	3.3	181.8
1970-71 . . .	40.9	79.1	26.7	48.8	4.0	3.6	203.1
1971-72 . . .	46.7	90.0	30.3	55.3	16.2	9.0	247.5
1972-73 . . .	54.2	99.3	34.4	61.4	18.3	6.1	273.8

EXPENDITURE										
	Pensions paid			Lump sum payments To former employees			Loss on sale or revalua- tion of assets	Other expen- diture (b)	Total expen- diture	
	Ex- employees	Widows or children	Total	On retire- ment	On resigna- tion or dismissal	To widows or children				Total
1968-69 . . .	18.5	3.3	21.8	14.9	12.7	3.4	31.0	1.6	3.3	57.6
1969-70 . . .	20.4	3.8	24.2	18.2	15.8	3.0	37.0	3.7	8.1	72.9
1970-71 . . .	23.2	4.1	27.3	22.7	16.8	3.8	43.3	7.2	5.6	83.4
1971-72 . . .	28.6	4.4	33.0	30.8	19.4	4.3	54.5	3.4	5.3	96.2
1972-73 . . .	31.6	4.8	36.4	39.7	22.0	4.8	66.5	2.0	9.5	114.4

(a) Includes receipts from life insurance offices, sub-underwriting commissions, etc. expenses payable from funds, payments to life insurance offices, etc.

(b) Includes administrative

SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: ASSETS(a)

	Cash in hand or in bank	Aust. Govt securi- ties	Local and semi- govt securi- ties	Loans on mortgage		Com- pany deben- tures, notes, and other loans to com- panies	Shares in com- panies	Land and build- ings	All other assets (b)	Total assets	Less sundry credi- tors, etc.	Amount of funds in Aus- tralia
				To com- panies	Other							
AMOUNT (\$ million)												
1968-69	24.5	178.5	206.0	74.8	33.7	261.0	310.5	11.4	21.1	1,121.7	6.8	1,114.9
1969-70	18.8	200.9	210.8	88.8	41.2	277.4	348.8	16.3	28.1	1,231.1	8.8	1,222.3
1970-71	24.3	230.9	211.1	105.2	41.3	295.9	382.4	25.2	33.6	1,350.0	9.0	1,341.0
1971-72	34.8	268.7	217.2	100.9	51.5	319.6	430.5	33.3	44.9	1,501.4	9.1	1,492.4
1972-73	36.0	296.9	224.2	136.6	35.7	352.2	475.0	41.4	67.5	1,665.5	11.8	1,653.7

PERCENTAGE DISTRIBUTION

1968-69	2.2	15.9	18.4	6.7	3.0	23.3	27.7	1.0	1.9	100.0	0.6	99.4
1969-70	1.5	16.3	17.1	7.2	3.3	22.5	28.3	1.3	2.3	100.0	0.7	99.3
1970-71	1.8	17.1	15.6	7.8	3.1	21.9	28.3	1.9	2.5	100.0	0.7	99.3
1971-72	2.3	17.9	14.5	6.7	3.4	21.3	28.7	2.2	3.0	100.0	0.6	99.4
1972-73	2.2	17.8	13.5	8.2	2.1	21.1	28.5	2.5	4.1	100.0	0.7	99.3

(a) Book values at balance dates. (b) Includes loans to authorised dealers in the short-term money market and loans to building societies.

FINANCE COMPANIES

Information relating to the lending operations of finance companies in Australia is given in the following tables. A comprehensive account of the scope of these statistics and fuller details of the transactions of finance companies, together with definitions of the various categories of finance agreements and of the items of data given in the tables, are provided in the bulletin *Finance Companies Transactions 1972-73* (5.13) and in the monthly statements *Finance Companies* (5.14). For the purposes of these statistics, finance companies are defined as companies which are engaged mainly in providing to the general public (businesses as well as persons in their private capacity) credit facilities of the following types: hire purchase and other instalment credit for retail sales, wholesale hire purchase, other consumer and commercial loans, and factoring. The finance companies covered in these statistics, insofar as they provide instalment credit for retail sales, are also included in the statistics of Instalment Credit for Retail Sales (see pages 548-9).

In general, companies which are engaged both in financing activities and other activities come within the scope of these statistics, provided that the major portion of their assets consists of financial assets of the types listed above and/or a major proportion of their income is derived from such assets. Companies are excluded if the major proportion of their balances outstanding consists of agreements written for the purpose of financing their own sales. Companies which are engaged mainly in financing, in any way, the operations of related companies ('related' as defined in the Companies Act) are also excluded from these statistics, as are unincorporated finance companies. Also excluded are the following classes of financial and quasi-financial institutions: banks; life insurance companies; fire, marine and general insurance companies; short-term money market dealers; pastoral finance companies; investment companies; unit trusts; land trusts; mutual funds and management companies for the foregoing trusts and funds; pension and superannuation funds; building and friendly societies; credit unions.

As from July 1971 the scope of the monthly collection has been altered to exclude all finance companies whose balances outstanding, on an Australia-wide basis, were less than \$500,000. Prior to July 1971 finance companies with balances outstanding of less than \$100,000 were excluded. Finance companies newly excluded from the collection as from July 1971 had, as at 30 June 1971, balances outstanding of less than \$57 million on the types of agreements mentioned above and \$0.7 million on leasing agreements. They had no transactions in bills of exchange.

FINANCE COMPANIES: SUMMARY, AUSTRALIA
(\$ million)

	Collections and other liquidations			Balances outstanding at end of year			
	Amount financed	Contracts including charges	Contracts excluding charges	All contracts	Contracts including charges	Contracts excluding charges	All contracts (a)
1968-69 . . .	3,247.0	1,418.4	1,916.3	3,334.6	2,105.5	723.5	2,829.0
1969-70 . . .	3,852.7	1,619.6	2,223.0	3,842.5	2,412.1	1,012.4	3,424.5
1970-71 . . .	4,505.3	1,788.3	2,771.4	4,559.7	2,773.4	1,280.4	4,053.9
1971-72 . . .	5,513.2	2,020.2	3,449.6	5,469.8	3,077.0	1,822.4	4,899.3
1972-73 . . .	5,704.6	2,414.7	3,430.1	5,844.8	3,435.2	2,228.3	5,663.5

(a) Amounts shown in this column are intended to provide a broad overall measure of total balances outstanding. However, movements in this series may be affected by changes in the proportions of the two components of the series to the total.

FINANCE COMPANIES: AMOUNT FINANCED, COLLECTIONS AND OTHER LIQUIDATIONS OF BALANCES, AND BALANCES OUTSTANDING BY TYPE OF AGREEMENT
(\$ million)

	Instal-ment credit for retail sales	Commercial loans repayable			Other consumer and commercial loans		Total
		Personal loans	Wholesale finance	Factor-ing	at call or within 90 days	Contracts including charges	
AMOUNT FINANCED DURING YEAR							
1968-69 . . .	914.2	132.1	944.4	75.7	496.9	683.7	3,247.0
1969-70 . . .	1,037.4	152.4	1,059.7	91.6	572.5	939.1	3,852.7
1970-71 . . .	1,124.8	162.6	1,134.6	97.6	865.8	1,120.0	4,505.3
1971-72 . . .	1,121.8	206.4	1,294.1	98.5	1,246.5	1,546.0	5,513.2
1972-73 . . .	1,193.8	272.7	1,439.5	109.3	(a)	2,689.3	5,704.6

COLLECTIONS AND OTHER LIQUIDATIONS OF BALANCES DURING YEAR

1968-69 . . .	1,019.7	(b)	934.8	87.9	503.6	398.7	390.0	3,334.6
1969-70 . . .	1,153.5	(b)	1,053.1	103.6	543.5	466.1	522.7	3,842.5
1970-71 . . .	1,302.8	174.7	1,127.6	114.4	836.8	335.8	667.5	4,559.7
1971-72 . . .	1,405.6	199.0	1,268.7	115.4	1,151.9	444.4	884.9	5,469.8
1972-73 . . .	1,491.1	280.5	1,473.5	126.3	(a)	678.2	1,795.3	5,844.9

BALANCES OUTSTANDING AT END OF YEAR

1968-69 . . .	1,368.6	(b)	146.7	22.6	53.9	736.9	500.4	2,829.0
1969-70 . . .	1,561.5	(b)	167.6	26.9	79.0	850.5	739.0	3,424.5
1970-71 . . .	1,732.4	218.3	193.4	27.8	108.2	843.96	930.2	4,053.9
1971-72 . . .	1,791.2	278.4	237.0	25.7	228.0	1,028.1	1,311.0	4,899.3
1972-73 . . .	1,866.8	373.6	224.4	27.2	(a)	1,220.2	1,951.3	5,663.5

(a) Series discontinued (b) Before 1970-71 personal loans were included in other consumer and commercial loans.

**FINANCE COMPANIES: LEASING, BILLS OF EXCHANGE AND
LOANS TO NON-FINANCE COMPANIES, AUSTRALIA**
(\$ million)

	<i>Leasing of business equipment and plant</i>		<i>Bills of exchange</i>		<i>Balances outstanding at end of period</i>	<i>Loans to non-finance companies in group</i>
	<i>Value of goods newly leased during period</i>	<i>Value of all leasing agreements at end of period</i>	<i>Amounts paid for bills acquired during period</i>	<i>Amounts re- ceived for bills disposed of during period</i>		
1968-69 . . .	148.7	253.9	122.4	122.4	17.8	20.6
1969-70 . . .	207.5	345.9	170.8	154.8	34.7	25.4
1970-71 . . .	262.5	459.6	280.8	265.0	51.8	32.0
1971-72 . . .	304.1	648.0(a)	346.6	318.5	83.7	30.2
1972-73 . . .	401.1	803.8	493.8	453.4	124.1	52.4

(a) As from July 1971 the valuation is 'gross receivables' and figures have been partly estimated. For more details see explanatory notes to the bulletin *Finance Companies Transactions 1972-73* (Reference No. 5.13).

**FINANCE COMPANIES: INSTALMENT CREDIT FOR RETAIL SALES
AMOUNT FINANCED, COLLECTIONS AND OTHER LIQUIDATIONS, AND BALANCES
OUTSTANDING, AUSTRALIA**
(\$ million)

	<i>Amount financed</i>				<i>Total</i>	<i>Collections and other liquidations</i>			<i>Balances out- standing at end of year</i>
	<i>New motor vehicles</i>	<i>Used motor vehicles</i>	<i>Plant and machinery</i>	<i>House- hold and personal goods</i>		<i>Cash col- lections</i>	<i>Other liquida- tions</i>	<i>Total</i>	
1968-69 . . .	352.1	341.5	78.0	142.6	914.2	981.5	38.2	1,019.7	1,368.6
1969-70 . . .	400.6	404.1	80.4	152.2	1,037.4	1,103.0	50.5	1,153.5	1,561.5
1970-71 . . .	426.5	462.6	67.8	167.8	1,124.8	1,226.9	75.9	1,302.8	1,732.4
1971-72 . . .	424.2	466.2	61.6	170.3	1,122.3	1,313.3	91.6	1,404.9	1,791.2
1972-73 . . .	433.6	496.1	69.0	194.5	1,193.7	1,393.0	97.9	1,490.9	1,867.7

INSTALMENT CREDIT FOR RETAIL SALES

Information relating to instalment credit for retail sales in Australia is given in the following tables. More detailed information may be found in the annual bulletin *Insurance and Other Private Finance* (5.15) and in the monthly bulletin *Instalment Credit for Retail Sales* (5.46).

The statistics cover operations of all types of instalment credit schemes which relate primarily to the financing of retail sales of goods, whether the credit is advanced by a retail business or by a non-retail finance business. In general, the term 'instalment credit' is defined as relating to schemes in which repayment is made by regular pre-determined instalments. Types of schemes covered include hire purchase, time payment, budget account, and personal loan schemes which relate primarily to the financing of retail sales of goods. In these statistics the term 'retail sales' relates not only to retail sales by retail establishments coming within the scope of the Censuses of Retail Establishments conducted periodically by this Bureau, but includes also other sales of goods to final purchasers (e.g. plant and machinery).

Figures for amounts financed *exclude* interest, hiring charges, insurance, etc. Figures for balances outstanding and collections *include* interest, hiring charges, insurance, etc. Details are not available of these charges or of other items (e.g. rebates allowed for early payments, late payment charges, bad debts written off) which affect the reconciliation of the three main instalment credit series—amount financed, collections, and balances outstanding.

Statistics of amounts financed are classified by type of goods, defined as follows: *motor vehicles* (new and used separately)—motor cars and motor cycles, commercial vehicles, tractors, caravans, trailers, motor parts and accessories, etc.; *plant and machinery*—farm machinery and implements, earth-moving equipment, aircraft, industrial plant and machinery, business machines and equipment (including commercial refrigeration equipment), etc.; *household and personal goods*—furniture, furnishings and floor coverings, domestic refrigerators, electrical goods, radios, television, musical instruments, bicycles, motor mowers, clothing, etc.

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF BUSINESS: AMOUNT FINANCED, BY COMMODITY GROUP, CASH COLLECTIONS, AND BALANCES OUTSTANDING, AUSTRALIA (\$ million)

	<i>Amount financed during year</i>					<i>Cash collections during year</i>	<i>Balances outstanding at end of year</i>
	<i>Motor vehicles, etc.</i>		<i>Plant and machinery</i>	<i>Household and personal goods</i>	<i>Total</i>		
	<i>New</i>	<i>Used</i>					
Retail businesses—							
1968-69 . . .	13.5	11.5	3.8	273.0	301.9	347.9	344.8
1969-70 . . .	12.5	9.8	2.6	288.2	313.1	360.7	349.9
1970-71 . . .	13.2	8.8	1.9	304.9	328.8	371.4	363.7
1971-72 . . .	12.6	6.7	1.5	316.1	336.9	384.6	366.9
1972-73 . . .	12.5	7.0	1.9	359.3	380.6	414.9	395.3
Non-retail finance businesses—							
1968-69 . . .	373.3	348.4	115.0	88.5	925.2	1,013.9	1,381.7
1969-70 . . .	422.1	413.1	112.7	88.5	1,036.3	1,127.7	1,557.7
1970-71 . . .	447.5	469.2	103.0	90.4	1,110.0	1,245.7	1,712.8
1971-72 . . .	449.7	475.3	92.9	93.4	1,111.3	1,343.8	1,768.4
1972-73 . . .	460.2	507.7	104.1	101.1	1,173.2	1,396.3	1,829.6
All businesses—							
1968-69 . . .	386.8	359.9	118.8	361.6	1,227.1	1,361.8	1,726.5
1969-70 . . .	434.6	422.9	115.3	376.7	1,349.5	1,488.4	1,907.5
1970-71 . . .	460.7	477.9	104.9	395.2	1,438.8	1,617.1	2,076.5
1971-72 . . .	462.3	482.0	94.4	409.5	1,448.2	1,728.4	2,135.3
1972-73 . . .	472.6	514.7	106.0	460.4	1,553.8	1,811.2	2,224.9

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF CREDIT
 AMOUNT FINANCED, BY COMMODITY GROUP, AND
 BALANCES OUTSTANDING, AUSTRALIA
 (\$ million)

	<i>Amount financed during year</i>				<i>Balances outstanding at end of year</i>
	<i>Motor vehicles, etc.</i>	<i>Plant and machinery</i>	<i>Household and personal goods</i>	<i>Total</i>	
Hire purchase—					
1968-69 . . .	463.5	97.8	134.1	695.4	1,078.0
1969-70 . . .	526.2	93.7	135.8	755.7	1,159.5
1970-71 . . .	604.2	91.7	136.7	832.6	1,261.5
1971-72 . . .	656.4	87.8	136.8	881.0	1,333.9
1972-73 . . .	769.5	98.4	158.0	1,025.9	1,474.4
Other instalment credit—					
1968-69 . . .	283.2	21.1	227.5	531.7	648.5
1969-70 . . .	331.3	21.6	240.9	593.8	748.1
1970-71 . . .	334.5	13.2	258.6	606.3	815.1
1971-72 . . .	287.9	6.6	272.7	567.2	801.4
1972-73 . . .	217.9	7.6	302.4	527.9	750.5
Total instalment credit—					
1968-69 . . .	746.7	118.8	361.6	1,227.1	1,726.5
1969-70 . . .	857.4	115.3	376.7	1,349.5	1,907.5
1970-71 . . .	938.6	104.9	395.2	1,438.8	2,076.5
1971-72 . . .	944.3	94.4	409.5	1,448.2	2,135.3
1972-73 . . .	987.4	106.0	460.4	1,553.8	2,224.9

NEW HIRE PURCHASE AGREEMENTS: AVERAGE VALUE AND
 AMOUNT AND PROPORTION FINANCED, BY COMMODITY
 GROUP, AUSTRALIA, 1972-73

<i>Commodity group</i>	<i>Average value of goods purchased per agreement</i>	<i>Average amount financed per agreement</i>	<i>Average proportion financed</i>
	\$	\$	Per cent
Motor vehicles, tractors, etc.	2,375	1,704	72
Plant and machinery	4,887	3,489	71
Household and personal goods	243	203	84
All groups	1,112	815	73

PASTORAL FINANCE COMPANIES

PASTORAL FINANCE COMPANIES: RURAL ADVANCES
AMOUNTS OUTSTANDING^(a)

(Source: Reserve Bank of Australia)

(\$ million)

End of June—	N.S.W.	Vic.	Qld	S.A.	W.A. and Tas.	Total
1969 . . .	77.6	65.9	62.6	70.2	61.5	337.7
1970 . . .	76.7	66.1	66.8	71.4	68.2	349.1
1971 . . .	70.8	57.2	69.6	73.7	61.7	333.0
1972 . . .	60.6	57.2	57.0	63.3	54.4	292.5
1973 . . .	65.3	68.0	53.3	57.3	59.2	303.1

(a) Compiled from returns supplied to the Reserve Bank by major pastoral finance companies. Advances are classified according to the location of the branch holding the advance, which in some cases may differ from the State of residence of the borrower.

PASTORAL FINANCE COMPANIES: LIABILITIES AND ASSETS^(a)

(Source: Reserve Bank of Australia)

(\$ million)

LIABILITIES

End of June—	Balances due to banks	Clients' credit balances	Debentures, notes and deposits		Other outside liabilities	Share- holders' funds	Overseas liabilities	Total liabili- ties/ assets
			Maturing within twelve months	Other				
1969 . . .	86.7	37.6	52.7	46.5	107.2	173.4	138.4	642.4
1970 . . .	95.1	34.7	70.6	52.1	113.6	181.1	152.5	699.6
1971 . . .	96.2	31.9	85.3	78.4	122.1	179.6	128.6	722.0
1972 . . .	57.1	35.1	137.6	86.4	150.2	183.3	124.0	773.6
1973 . . .	54.7	57.6	207.5	94.3	196.6	199.1	129.3	939.1

ASSETS

End of June—	Cash and deposits with banks	Loans to author- ised money market dealers	Other short- term assets (b)	Aust. Govt securi- ties	Advances and sundry debtors		Stocks	Fixed assets	Other assets
					Rural	Other			
1969 . . .	11.1	1.6	6.9	35.7	337.7	29.7	40.4	151.6	27.7
1970 . . .	7.9	1.2	17.5	32.6	349.1	36.9	42.5	176.5	35.3
1971 . . .	10.7	3.3	28.8	35.7	333.0	33.9	42.3	190.9	43.3
1972 . . .	10.0	15.0	60.8	65.7	292.5	32.1	48.9	185.3	63.4
1973 . . .	14.9	19.1	171.7	58.3	303.1	45.7	67.2	190.0	69.2

(a) Compiled from returns supplied to the Reserve Bank by major pastoral finance companies. (b) Excludes Australian Government securities.

RURAL DEBT

Major sources of credit for rural purposes include banks, Australian and State governments, financial agencies, pastoral finance companies, and life insurance companies. The following table shows the estimated rural debt to these lenders.

ESTIMATED RURAL DEBT TO SPECIFIED LENDERS,

(Source: Reserve Bank of Australia)

(\$ million)

Lender	30 June—				
	1969	1970	1971	1972	1973
Major trading banks	939	998	994	963	1,051
Ex-service settlement	83	80	83	79	71
Other government, including State banks and State savings banks	317	(a)351	374	432	481
Pastoral finance companies	338	349	333	293	303
Commonwealth Development Bank	162	176	192	202	198
Life insurance companies	113	128	129	125	117
Total	1,952	2,082	2,104	2,094	2,221

(a) Reserve Bank estimate.

In addition, credit is supplied to the rural sector by finance companies, merchants, co-operative producer organisations, and by private lenders and investors, the most noteworthy of these last-mentioned sources involving family arrangements and property vendors. No data are currently available on the extent of the outstanding debt by the rural sector to these sources.

NEW CAPITAL RAISINGS BY COMPANIES IN AUSTRALIA

Information relating to capital raised by companies in Australia is given in the following tables. More detailed information may be found in the annual bulletin *Insurance and Other Private Finance* and in quarterly bulletins dealing with capital raisings (see beginning of chapter).

The statistics relate to capital raised by companies through issues of shares, and in the case of companies listed on stock exchanges, through the issue of debentures, notes and similar securities and the acceptance of deposits, and in the case of unlisted companies, by way of loans secured over the entire assets of the company. Capital obtained by way of bank overdraft or bank loans, trade credit, temporary advances, and loans secured over part only of the assets of the company is not included. Totally unsecured loans are included in the case of listed companies, but are excluded in the case of unlisted companies.

Separate statistics are given for listed and unlisted companies. Listed companies are companies incorporated in Australia or Papua New Guinea and listed on one or more of the Australian stock exchanges. All other companies incorporated in Australia (excluding its overseas territories), including subsidiaries of listed companies, are classified as unlisted companies. Companies incorporated overseas, whether listed on an Australian stock exchange or not, are excluded from the statistics of share issues. However, subsidiaries of overseas companies, if incorporated in Australia, are included in the statistics of share issues. The statistics of new capital raised through issues of debentures, notes, etc., and the acceptance of deposits, include, in addition to capital raised by companies incorporated in Australia (including subsidiaries of overseas companies), capital raised in this way from Australian sources by overseas public companies through their Australian offices. Where an issue is made at the same time on Australian and overseas markets, that part of the issue which is taken up through overseas brokers is excluded.

The following are explanatory notes relating to some of the items shown in the tables.

New money

This is the net amount of cash transferred from the 'investing public' to the 'company sector'. For this purpose the 'investing public' is defined to include all non-company subscribers, Australian life insurance companies and Australian government and private superannuation funds. Subscriptions

by overseas banks, overseas life insurance companies and overseas superannuation funds, are excluded. In practice, it is necessary to include in 'new money', most subscriptions by companies holding less than five per cent of the ordinary shares of an issuing company as it is not practicable to separately identify all such subscriptions. However, where large subscriptions by companies holding less than five per cent of the ordinary shares in the issuing company are identified they are not included in 'new money'.

Amount not involving new money. This amount includes cash subscriptions received by issuing companies from associated companies. Such subscriptions represent inter-company transfers only, and do not involve a receipt of funds from the 'investing public'. Also included are amounts which, although subscribed by the 'investing public' (i.e. subscribers other than 'associated companies'), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc., or are used to purchase from individuals existing shares, debentures, etc., in other companies, including existing shares, etc., in associated and subsidiary companies. The funds used in this way are thus returned to another section of the 'investing public' and do not represent a *net* transfer of cash from the 'investing public' to the companies. (Besides these purchases of existing shares, etc., from individuals, purchases of existing shares, etc., from companies other than associates of the issuing company might also be included in this item, but the amounts involved are small and separate details have not been collected.) In the tables which follow, the 'amount not involving new money' is obtained by deducting from the total cash raised the amount of 'new money'.

**LISTED COMPANIES: NEW CAPITAL RAISED THROUGH ISSUES OF SHARES
DEBENTURES, OR REGISTERED NOTES, ETC (a), OR ACCEPTING DEPOSITS(b)**
(\$ million)

	Share capital					Debentures, registered notes and deposits			
	Value of issues commenced	Non-cash issues commenced (c)	Cash issues commenced	Cash raised during period (d)	Amount not involving new money	New money	Total amount raised (e)	Amount not involving new money (e)	New money
1968-69 . . .	927.2	209.9	717.3	482.2	143.7	338.5	1,838.4	1,389.5	449.1
1969-70 . . .	1,070.0	282.8	787.2	664.5	207.6	456.8	2,567.2	2,085.7	481.5
1970-71 . . .	991.7	446.3	545.4	454.6	93.4	361.2	3,193.1	2,676.7	516.4
1971-72 . . .	655.4	398.8	256.5	342.2	87.3	255.0	3,650.3	2,925.5	724.9
1972-73 . . .	708.5	403.5	305.1	360.1	159.0	201.1	3,629.6	3,026.0	603.6

(a) Includes convertible notes. (b) Deposits accepted by banks, life insurance companies, pastoral companies and building societies, and loans to authorised dealers in the short-term money market are not included. (c) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (d) Amounts paid up on issues commenced during the year plus calls on issues commenced in earlier years. (e) Includes conversions, renewals, etc.

**UNLISTED COMPANIES: NEW CAPITAL RAISED THROUGH ISSUE OF
SHARES AND LOANS SECURED BY CHARGES OVER THE COMPANIES'
ENTIRE ASSETS**
(\$ million)

	Share capital					Loans secured by charges over the companies' entire assets			
	Value of issues commenced(a)	Non-cash issues commenced (b)	Cash issues commenced	Cash raised during period (c)	Amount not involving new money	New money	Total amount raised (d)	Amount not involving new money (d)	New money
1968-69 . . .	718.8	343.8	375.3	299.0	230.5	68.4	95.3	62.8	32.5
1969-70 . . .	809.1	290.9	518.2	454.5	374.9	79.5	95.0	75.4	19.6
1970-71 . . .	721.6	233.1	488.6	460.2	389.3	70.9	85.1	66.5	18.7
1971-72 . . .	783.7	353.1	430.6	469.5	403.8	65.6	127.1	95.2	31.9
1972-73 . . .	655.1	287.7	367.4	381.8	319.0	62.8	123.0	79.6	43.4

(a) From 1970-71, issues with a nominal value of \$200 or less are excluded. (b) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (c) Amounts paid up on issues commenced during year plus calls on issues commenced in previous years. (d) Includes conversion, renewals etc.

LISTED AND UNLISTED COMPANIES: NEW MONEY RAISED, BY INDUSTRY GROUP
(\$ million)

	<i>Companies listed on stock exchanges</i>			<i>Companies not listed on stock exchanges</i>			<i>Grand total</i>
	<i>Share capital(a)</i>	<i>Debentures registered notes and deposits(b)</i>	<i>Total</i>	<i>Share capital(a)</i>	<i>Secured loans(c)</i>	<i>Total</i>	
Manufacturing—							
1968-69	92.9	68.3	161.2	14.4	6.3	20.7	181.9
1969-70	122.9	56.2	179.1	12.7	3.3	16.0	195.1
1970-71	72.6	33.3	105.9	12.1	0.7	12.8	118.7
1971-72	31.1	122.6	153.7	11.5	5.7	17.2	170.9
1972-73	66.6	23.9	90.6	9.5	4.6	14.1	104.7
Finance and property(b)—							
1968-69	45.9	338.1	384.0	18.9	6.4	25.3	409.3
1969-70	36.7	366.7	403.4	20.9	10.2	31.1	434.5
1970-71	38.5	424.3	462.8	11.8	9.2	21.0	483.8
1971-72	42.3	563.1	605.4	13.1	19.4	32.5	637.9
1972-73	26.7	532.2	558.9	19.3	27.6	46.9	605.8
Commerce—							
1968-69	18.4	30.7	49.1	10.1	2.3	12.4	61.5
1969-70	8.9	13.8	22.7	8.4	0.9	9.3	32.0
1970-71	5.2	29.3	34.5	5.4	0.8	6.2	40.7
1971-72	12.3	36.3	48.6	5.6	0.3	5.9	54.5
1972-73	9.3	16.6	25.9	9.0	3.1	12.1	38.0
Other industries—							
1968-69	181.5	12.0	193.5	21.5	17.3	38.8	232.3
1969-70	288.4	44.8	333.2	33.0	5.3	38.3	371.5
1970-71	244.9	29.6	274.5	35.4	8.2	43.6	318.1
1971-72	169.3	2.9	172.2	26.5	6.4	32.9	205.1
1972-73	98.5	30.7	129.2	17.6	8.0	25.6	154.8
All industries—				(d)		(d)	(d)
1968-69	338.5	449.1	787.6	68.4	32.5	100.9	888.5
1969-70	456.8	481.5	938.3	79.5	19.6	99.1	1,037.4
1970-71	361.2	516.4	877.6	70.9	18.7	89.6	967.2
1971-72	255.0	724.9	979.9	65.6	31.9	97.5	1,077.2
1972-73	201.1	603.6	804.7	62.8	43.4	106.2	910.9

(a) Includes preference shares. (b) Excludes deposits accepted by banks, insurance companies, pastoral companies and building societies, and loans to authorised dealers in the short-term money market. (c) Includes only loans which are secured by charges over the companies' entire assets. (d) Up to 1969-70, the industry figures for unlisted companies exclude share issues with a nominal value of \$2,000 or less, but such issues are included in the All Industries figures. From 1970-71 the industry figures for unlisted companies exclude issues with a nominal value of \$10,000 or less, and issues with a nominal value of \$200 or less are excluded from the All Industries figures.

SHORT-TERM MONEY MARKET

For some years prior to 1959 leading stockbrokers had been actively engaged in the acceptance of short-term funds against the security of government securities, but their operations were limited by the absence of suitable short-term securities and their liquidity requirements. In February 1959 the Commonwealth Bank (now the Reserve Bank) gave official status to the market by announcing that under certain conditions it would act as lender of last resort to authorised dealers in the short-term money market.

The form of organisation consists of nine companies whose functions are:

- (i) to accept loans overnight, at call or for fixed periods, in minimum amounts of \$50,000 and to invest these funds in money market securities.
- (ii) to engage as traders in the buying and selling of money market securities.

The types of securities that may be used as money market securities are subject to the approval of the Reserve Bank. At present they comprise Australian Government securities maturing within five years, commercial bills of any maturity that have been accepted or endorsed by a trading bank, banks' certificates of deposit maturing within five years, and non-bank commercial bills maturing within 180 days.

Dealers are required to have a minimum paid-up capital of \$400,000 and there is a limit on the maximum ratio of loans to shareholders' funds.

Under the lender of last resort arrangements dealers may borrow from the Reserve Bank for a minimum of seven days and at a high rate of interest against the lodgment of Australian Government securities.

SHORT-TERM MONEY MARKET: SELECTED LIABILITIES AND ASSETS AND INTEREST RATES OF AUTHORISED DEALERS

(Source: Reserve Bank of Australia)

Month	Liabilities to clients			Holdings of Aust. Govt securities (at face value)	Com-mercial bills	Bank's certi-ficates of deposit	Interest rates on loans accepted during month				Weighted average interest rate on loans out-standing (a)	
	All trading banks	Other clients	Total				At call		For fixed periods			
							Mini-mum per cent per annum	Maxi-mum per cent per annum	Mini-mum per cent per annum	Maxi-mum per cent per annum		
	Average of weekly figures—(\$ million)											
June—												
1969	94.9	398.7	493.6	505.6	28.9	15.0	2.00	7.50	4.00	6.75	4.59	
1970	102.8	464.2	567.0	575.4	38.3	3.6	3.50	8.80	4.50	8.50	6.12	
1971	142.0	555.2	697.2	682.0	45.4	3.4	2.00	9.50	4.00	8.00	5.91	
1972	249.8	741.5	991.3	975.0	39.8	20.8	2.00	8.25	4.25	6.60	5.18	
1973	149.6	670.2	819.8	732.2	40.8	79.7	2.00	8.75	2.00	7.00	4.70	

(a) Average of weekly figures.

SHORT-TERM MONEY MARKET: AUTHORISED DEALERS' LIABILITIES BY TYPE OF CLIENT(a)

(Source: Reserve Bank of Australia)

(\$ million)

Client	30 June—				
	1969	1970	1971	1972	1973
All trading banks	90.0	158.4	189.2	369.3	212.9
Savings banks	36.0	37.3	77.7	69.0	125.5
Insurance offices	32.4	24.4	26.8	44.8	48.9
Superannuation, pension and provident funds	8.9	16.6	22.4	19.3	16.1
Hire purchase and other instalment credit companies	2.4	7.9	6.1	11.7	7.7
Companies, n.e.i.	140.3	143.7	155.3	253.3	209.4
Australian and State Governments	62.3	47.7	91.9	100.3	75.6
Local government and semi-government authorities, n.e.i.	75.3	87.7	70.0	99.8	91.2
All other lenders(b)	45.9	36.2	41.5	71.1	51.0
Total	493.4	559.9	680.8	1,038.7	838.2

(a) Compiled from returns supplied by authorised dealers in the short-term money market. Liabilities to Reserve Bank as lender of last resort are excluded. (b) Includes marketing boards and trustee companies.

UNIT TRUSTS, LAND TRUSTS AND MUTUAL FUNDS

Statistics of operations of unit trusts, land trusts and mutual funds are shown below. Details of superannuation funds conducted by unit trust management companies are not included in these tables.

TRUSTS AND FUNDS: TOTAL MARKET VALUE AND TRANSACTIONS
(\$ million)

	<i>Cash transactions— trust units and fund shares</i>		<i>Purchases and sales of investments(b)</i>		
	<i>Total market value at end of period(a)</i>	<i>Total amount received(c)</i>	<i>Total amount paid(d)</i>		
				<i>Purchases (e)</i>	<i>Sales (f)</i>
1968-69 . . .	270.2	41.6	42.0	48.2	54.6
1969-70 . . .	286.1	59.0	32.3	61.1	50.8
1970-71 . . .	278.6	56.5	39.3	74.5	51.5
1971-72 . . .	326.9	57.9	33.6	78.3	47.0
1972-73 . . .	380.3	79.1	32.7	111.5	71.5

(a) Includes value of land trusts at valuation. (b) Australian Government, local authority and semi-government securities, shares, debentures, unsecured notes, loans, deposits on term or notice of three months or longer, land and buildings, etc. (c) For trust units and fund shares issued. Includes re-issues and new issues. Includes fees and expenses. (d) For trust units and fund shares repurchased. Includes those units and fund shares intended for re-issue. (e) Payments for assets acquired during period. Includes brokerage and stamp duty. (f) Receipts for assets sold or redeemed during period. Excludes brokerage and stamp duty.

**TRUSTS AND FUNDS: ANALYSIS OF PURCHASES AND SALES OF
INVESTMENTS**
(\$ million)

	<i>Shares (incl. preference shares)</i>	<i>Debentures, unsecured notes, deposits (a)</i>	<i>Land, buildings, mortgages</i>	<i>Other(b)</i>	<i>Total</i>
Purchases—					
1968-69 . . .	17.0	11.6	19.6	0.1	48.2
1969-70 . . .	35.3	10.6	14.9	0.3	61.1
1970-71 . . .	39.2	10.6	24.6	..	74.5
1971-72 . . .	17.2	14.3	42.9	3.9	78.3
1972-73 . . .	22.1	18.2	71.0	0.1	111.5
Sales—					
1968-69 . . .	44.0	5.5	3.5	1.6	54.6
1969-70 . . .	37.9	6.4	5.5	1.1	50.8
1970-71 . . .	35.8	8.3	5.1	2.3	51.5
1971-72 . . .	30.9	7.9	7.6	0.5	47.0
1972-73 . . .	45.3	9.4	15.7	1.1	71.5

(a) Excludes cash on hand and at bank, loans to authorised dealers in the short-term money market, and other deposits under three months' term or notice. (b) Includes Australian Government, local and semi-government securities.

REGISTERED BUILDING SOCIETIES

Permanent and terminating building societies

REGISTERED BUILDING SOCIETIES: SELECTED ITEMS(a)
AUSTRALIA

	<i>Societies making returns</i>			<i>Shareholders</i>	<i>Loans paid over</i>	<i>Administrative expenses</i>
	<i>Permanent</i>	<i>Terminating (b)</i>	<i>Total</i>			
	No.	No.	No.	No.	\$'000	\$'000
1967-68	161	4,388	4,549	458,881	260,011	13,060
1968-69	173	4,641	4,814	535,173	331,850	16,503
1969-70	182	4,883	5,065	669,371	444,263	21,500
1970-71	189	5,240	5,429	862,617	453,038	27,139
1971-72	193	5,434	5,627	1,243,298	650,603	37,378

(a) At various balance dates within the financial year shown. (b) Co-operative housing and other terminating societies.

REGISTERED BUILDING SOCIETIES: LIABILITIES AND ASSETS(a), AUSTRALIA
(\$'000)

	<i>Liabilities</i>					<i>Assets</i>			
	<i>Investing members' funds</i>	<i>Borrowing members' funds</i>	<i>Deposits</i>	<i>Loans due to governments</i>	<i>Other liabilities</i>	<i>Total liabilities</i>	<i>Advances on mortgages(b)</i>	<i>Other assets</i>	<i>Total assets</i>
1967-68	394,806	178,242	72,395	257,638	441,742	1,344,823	1,266,294	78,528	1,344,823
1968-69	548,619	185,623	126,114	283,716	454,129	1,598,204	1,490,259	107,945	1,598,204
1969-70	812,688	174,676	156,849	312,909	475,198	1,932,322	1,776,761	155,561	1,932,322
1970-71	1,132,556	165,747	195,776	348,959	457,272	2,300,311	2,038,305	262,005	2,300,311
1971-72	1,616,255	160,129	259,145	377,870	461,635	2,875,034	2,462,258	412,775	2,875,034

(a) At various balance dates within the financial year shown. (b) Includes advances on mortgages of terminating societies which are mainly on a gross basis. Net advances may be derived by subtracting 'Borrowing members' funds'.

Permanent building societies

The following statistics summarise information obtained from a monthly collection introduced in May 1969 and relate to the operations of permanent building societies in all States and the Australian Capital Territory and the Northern Territory.

PERMANENT BUILDING SOCIETIES: AUSTRALIA
SELECTED TRANSACTIONS AND BALANCES
(\$'000)

	<i>Loans approved during year(a)</i>	<i>Loans advanced during year(b)</i>	<i>Loans approved but not advanced at end of year(c)</i>	<i>Principal owing on mortgages at end of year</i>	<i>Paid-up share-capital at end of year</i>	<i>Borrowings by</i>
						<i>societies— amount owing at end of year(d)</i>
1969-70	379,051	375,535	58,354	993,539	799,470	277,659
1970-71	428,628	368,733	100,285	1,246,167	1,120,150	322,627
1971-72	689,358	616,399	150,421	1,702,602	1,624,710	414,183
1972-73	1,180,792	1,085,708	189,185	2,510,326	2,254,704	612,812

(a) Includes loans approved for flats and home units, supplementary loans approved to complete the original purchase or construction of a house, flat or home unit and second mortgage loans approved. (b) Includes capitalised mortgage insurance premiums and other capitalised charges. (c) Excludes cancellations of loan approvals. (d) Includes deposits with societies, advances under Commonwealth and State Housing Agreements but excludes unsecured borrowings from banks.

FRIENDLY SOCIETIES AND CO-OPERATIVE SOCIETIES

Friendly societies

In 1972 the total membership of friendly societies in Australia was about 439,000, but as certain benefits such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies, even when due allowances are made for young and unmarried members. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward to the Registrar annual returns about their membership and their finances, and reports dealing with the returns received are published in most of the States.

FRIENDLY SOCIETIES(a): SUMMARY, 1971-72

	N.S.W.(b)	Vic.	Qld	S.A.	W.A.	Tas.(c)	Total
Registered societies	39	115	17	13	11	9	204
Branches	1,506	1,046	376	455	243	108	3,734
Benefit members at end of year	159,043	147,115	63,933	50,077	14,087	4,506	438,761
Average benefit members during year	156,073	147,969	63,446	50,283	14,464	4,608	436,843
Members who received sick pay	n.a.	n.a.	4,884	6,579	1,877	661	n.a.
Total weeks sick pay granted	n.a.	354,374	94,165	136,197	48,189	17,339	n.a.
Average sick weeks per member	n.a.	n.a.	19.3	20.7	25.7	26.2	n.a.
Deaths of benefit members	n.a.	2,328	1,240	1,043	347	196	n.a.
Proportion of deaths per 1,000 members (average)	n.a.	15.7	19.5	20.7	24.0	42.5	n.a.
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Revenue—							
Entrance fees, levies and members' contributions	27,528	24,583	5,564	11,744	3,735	66	73,220
Interest, dividends and rents	1,996	3,499	2,367	1,243	193	92	13,357
All other revenue	744	1,155		1,961	91	18	
Total revenue	30,268	29,237	7,931	14,947	4,018	175	86,576
Expenditure—							
Sick pay	667	567	119	173	38	23	1,587
Medical attendance and medicine	20,968	20,968	5,976	11,076	3,294	1	62,282
Sums payable at death	745	270	207	145	52	47	1,466
Administration	4,510	3,934	1,245	1,641	260	45	16,053
All other expenditure	996	2,445		690	246	42	
Total expenditure	27,885	28,183	7,547	13,726	3,889	158	81,388
Total funds	37,663	50,635	11,866	22,184	4,541	1,463	128,352

(a) Excludes juvenile branches, dispensaries, medical institutes, and certain miscellaneous societies. Receipts and payments of subsidy under the Commonwealth medical and hospital benefit schemes are excluded. (b) Includes the Australian Capital Territory. (c) Year ended 31 December 1972.

Co-operative societies

Co-operative societies are divided into three classes: (i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements; and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as producers' co-operative societies and the second as consumers' co-operative societies. The particulars given for New South Wales relate to societies registered under the Co-operation Act, 1923-1969. A summary of the business of all co-operative societies for the year 1971-72 for all States is given in the following table.

CO-OPERATIVE SOCIETIES: 1971-72

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Total</i>
Societies . . . No.	325	150	280	62	68	16	901
Members . . . No.	409,119	162,974	163,879	123,755	53,984	6,695	920,406
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Income—							
Gross turnover (sales) .	441,120	199,242	220,280	74,021	78,638	12,346	1,025,647
Other income . . .	3,933	5,923	14,344	5,814	27,424	670	58,108
Total income . . .	445,053	205,165	234,624	79,835	106,063	13,016	1,083,755
Expenditure—							
Other purchases . . .	434,717	145,356	168,512	52,106	66,218	10,506	1,047,059
Other expenditure . . .		51,892	52,620	28,215	34,603	2,314	
Total expenditure . . .	434,717	197,248	221,132	80,321	100,821	12,820	1,047,059
Rebates and bonuses . .	6,501	1,672	4,426	2,057	3,498	n.a.	n.a.
Dividends on share capital	1,642	1,772	981	555	796	32	5,779
Liabilities—							
Paid-up capital . . .	43,258	27,894	30,708	8,867	13,302	1,304	125,334
Bank overdrafts . . .	47,345	17,964	15,949	8,596	5,120	946	95,919
Accumulated profits . .	26,920	3,396	8,537	1,367	169	479	126,295
Reserve funds . . .		26,873	38,620	9,163	9,984	788	
Loan capital . . .	73,633	13,440	22,523	16,644	60,827	1,387	318,497
Sundry creditors . . .		31,535	36,243	6,259	16,317	2,022	
Other liabilities . . .		7,413	13,290	12,092	4,593	279	
Total liabilities . . .	191,155	128,515	165,870	62,988	110,311	7,205	666,045
Assets—							
Land and buildings . . .	75,780	30,228	77,637	13,843	10,809	1,579	302,950
Machinery, plant and other fixed assets . . .		25,479		11,046	55,821	727	
Stocks . . .	59,161	22,783	13,675	20,049	7,226	1,228	124,122
Sundry debtors . . .	36,889	35,506	61,505	9,428	27,357	2,804	173,489
Cash in hand and on deposit . . .	19,324	5,530	3,597	844	2,114	257	65,483
Profit and loss account . . .		2,885	893	284	804	611	
Other assets . . .		6,102	8,563	7,493	6,180		
Total assets . . .	191,155	128,515	165,870	62,988	110,311	7,205	666,045

LOTTERIES AND BETTING

Lotteries

The State Governments of New South Wales, Queensland, South Australia and Western Australia operate lotteries in their own States. Tattersall Sweep Consultations are operated under government licence in Victoria and also sell tickets under government licence in Tasmania and New Zealand. Tickets for any of these lotteries may also be sold in the Northern Territory and the Australian Capital Territory. The statistics of sales of tickets and prizes include the sales and allotments of prizes in New Zealand, Tasmania, the Northern Territory and the Australian Capital Territory. In general, revenue derived by the State Governments from these lotteries is used directly or indirectly to provide funds for expenditure on hospitals, charities, etc.

LOTTERIES: VALUE OF TICKET SALES, PRIZES ALLOTTED, TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES (\$'000)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Total</i>
TICKET SALES						
1968-69	53,335	19,440	16,680	5,350	5,150	99,955
1969-70	55,645	21,400	17,600	5,700	6,200	106,545
1970-71	58,057	21,360	18,560	6,000	6,250	110,227
1971-72	62,389	21,388	20,510	6,200	7,400	117,887
1972-73	64,563	30,145	20,420	6,746	8,149	130,023
PRIZES ALLOTTED						
1968-69	32,843	11,664	10,651	3,241	3,001	61,400
1969-70	34,052	12,840	11,237	3,460	3,757	65,346
1970-71	35,815	12,816	11,851	3,648	3,803	67,932
1971-72	38,284	12,833	13,122	3,775	4,506	72,519
1972-73	39,485	18,087	13,070	4,125	4,958	79,725
TAXES PAID AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES(a)						
1968-69	12,202	6,026	4,160	1,633	1,437	25,458
1969-70	12,712	6,634	4,358	1,927	1,643	27,274
1970-71	13,127	6,622	4,492	1,833	1,594	27,667
1971-72	13,655	6,630	4,910	1,979	1,935	29,109
1972-73	13,923	9,345	4,826	1,894	2,137	32,125

(a) Includes grants to Tasmanian and New Zealand governments by Tattersall Sweep Consultations, Victoria.

Betting**TOTALISATOR INVESTMENTS AND INVESTMENTS WITH LICENSED BOOKMAKERS
STATES AND AUSTRALIAN CAPITAL TERRITORY
(\$'000)**

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>Total</i>
TOTALISATOR INVESTMENTS								
1968-69	241,350	224,955	61,003	26,292	52,938	1,145	4,215	611,897
1969-70	292,442	245,993	81,771	31,679	60,913	1,250	7,092	721,141
1970-71	334,814	273,638	94,534	38,403	67,652	1,322	8,808	819,172
1971-72	394,620	329,142	115,312	47,281	82,543	1,453	10,723	981,074
1972-73	450,268	377,825	140,184	57,768	92,375	1,493	13,699	1,133,612

INVESTMENTS WITH LICENSED BOOKMAKERS^(a)

1968-69	282,497	172,388	141,167	50,263	32,189	41,705	4,127	724,335
1969-70	310,881	183,296	145,837	58,165	38,972	44,899	4,713	786,763
1970-71	314,658	196,166	147,931	60,728	39,778	48,825	5,232	813,318
1971-72	345,770	217,898	158,652	73,544	41,840	52,871	6,805	897,381
1972-73	377,222	228,756	181,858	82,746	44,282	58,220	8,093	981,177

(a) Estimated from taxes on betting with licensed bookmakers in all States except Australian Capital Territory.

PROBATES AND LETTERS OF ADMINISTRATION

The following table gives some particulars of the number and value of estates of deceased persons in each State for the latest year for which information is available. Owing to differences in legislation in the various States the figures are not entirely comparable.

PROBATES AND LETTERS OF ADMINISTRATION: STATES

	<i>N.S.W.</i> 1972-73 ^(a)	<i>Vic.</i> 1972	<i>Qld</i> 1972-73	<i>S.A.</i> 1972	<i>W.A.</i> 1972-73	<i>Tas.</i> 1972 ^(b)
Estates	No.	28,549	21,011	9,810	5,291	4,624
Gross value	\$'000	n.a.	405,229	182,341	98,170	98,537
Net value	\$'000	599,057	358,580	170,415	90,881	90,628
						27,877

(a) Total estates of deceased persons assessed for death duty. (b) Estates dealt with by the Taxation Department.

AUSTRALIAN INDUSTRY DEVELOPMENT CORPORATION

The Australian Industry Development Corporation was established by the *Australian Industry Development Corporation Act 1970-1973* and commenced operations on 1 February 1971. Within the objectives and broad policy guidelines defined in the Act the Corporation operates as an independent commercial enterprise governed by its own Board of Directors.

The Corporation has a capital of \$100 million, to be subscribed by the Australian Government in instalments but the whole being available if required to meet obligations. The paid-up capital at 30 June 1974 was \$50 million.

The central objectives of the Corporation are to promote the development of industries in Australia and support local participation in the ownership and control of industries and resources. Consistent with these objectives and the principle that A.I.D.C. must operate on a commercial basis and assist only in ventures which can demonstrate sound prospects, the Corporation provides finance, obtained principally by overseas borrowings, for essentially Australian-owned firms (including local firms with foreign partners) engaged in new development or expansion in the manufacturing, processing and mining industries.

The Corporation's financial participation in a venture is governed by the prevailing terms and conditions under which it can itself obtain loan finance. The capital of the Corporation is provided as a base for its borrowings and is not directly used for assistance to industry projects.

The Corporation participates in the financing of a development only at the invitation of the enterprise concerned and in the manner dictated by the needs of the project. Its assistance may be given in a variety of ways, such as loan investments or guarantees, or by temporarily taking a minority equity position.

As at 30 June 1974, the end of A.I.D.C.'s second year of operations, the Corporation had undertaken financial commitments totalling \$157 million in respect of 88 industry development ventures.

CHAPTER 18

PUBLIC FINANCE

This chapter deals with the financial activities of the organisations which make up the three levels of government in the Australian political system—Federal, State and Local—and which collectively constitute the public sector. The chapter is organised into seven main groupings of topics. An account is given of the activities of each level of government, with particular emphasis being given to Authorities of the Australian Government. Tables are then presented which bring together the transactions of all public authorities to highlight the role of the public sector as a whole in the Australian economy. Then follows a section on government borrowing activities at all levels; and a section which looks at some major groups of State authorities that have been created to provide specific services, such as roads, water supply, etc.

For further detailed information on the subjects covered by this chapter *see* the annual bulletins published by this Bureau: *Australian National Accounts—National Income and Expenditure* (7.1); *Public Authority Finance—Authorities of the Australian Government* (5.12); and *Commonwealth Taxation Assessments* (5.29). Additional information may be found in *Public Authority Finance* (5.33), and in the mimeographed bulletins *Public Authority Finance—State and Local Authorities* (5.43) and *Public Authority Finance—Taxation* (5.30). Current information in summarised form is given in *Quarterly Estimates of National Income and Expenditure* (7.5), and is also contained in *Quarterly Summary of Australian Statistics* (1.3), the *Monthly Review of Business Statistics* (1.4), and the *Monthly Digest of Current Economic Statistics* (1.5).

Additional details of the transactions of public authorities engaged in particular fields of activity, such as defence, transport and communication, health and welfare, education, etc., may be found in other chapters of this Year Book.

AUSTRALIAN GOVERNMENT FINANCE

Financial provisions of the Constitution

The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth of Australia are contained in Sections 81 to 105A of the Commonwealth Constitution (*see* pages 16–19 of this Year Book). Two other sections which have a most important bearing on questions of Commonwealth (i.e. Australian Government) finance are Sections 69 and 51.

Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Sections 87 and 96 deal with the financial relations between the Commonwealth and the States. The full text of the Financial Agreement of 1927 was given in Year Book No. 31, page 21; accounts of this Agreement as affected by subsequent Agreements were included in later issues of the Year Book up to No. 37 (*see pages* 685–90); details of the main provisions appeared in further issues of the Year Book up to No. 50 (*see pages* 952–3). Details of current provisions for financial assistance to the States are given on pages 577 to 584.

The *Audit Act* 1901–1969 lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Australian Government finances is the responsibility of the Australian Government Treasurer.

Australian Government Budget

The Australian Government Budget records the transactions of those authorities of the Australian Government whose receipts and payments are summarised in the statements of Treasury balances. In 1972-73 the change in cash balances was represented by the following—

	\$'000
Cash receipts of the Consolidated Revenue Fund	9,278,207
plus cash receipts of Loan Fund	1,392,188
plus cash receipts of Trust Fund	4,614,939
<i>Total</i>	<i>15,285,334</i>
<i>less</i> cash payments from Consolidated Revenue Fund	<i>9,278,207</i>
<i>less</i> cash payments from Loan Fund	<i>1,392,188</i>
<i>less</i> cash payments from Trust Fund (including increase in investments of the Trust Fund)	<i>4,474,047</i>
<i>Total</i>	<i>15,144,442</i>
<i>equals</i> increase in cash balances	<i>140,892</i>

Revenues from taxation and other sources are paid into the Consolidated Revenue Fund, from which the main expenditures are for defence, social services, payments to the States and general administration. The Trust Fund covers special transactions outside the ordinary operations of departmental expenditures, such as pension funds and moneys held for expenditure by the Australian Government at some future time. The Loan Fund receives its funds from the sale of Australian Government securities, and the expenditures from the Fund are made in accordance with the purpose of issue of each loan. The main disbursements from the Loan Fund are to the States by way of distribution of the proceeds of loans raised by the Australian Government on their behalf and capital assistance grants, the remaining disbursements being mainly for Australian Government purposes such as defence or war service land settlement.

The receipts and outlay of the Budget for 1973-74 are set out in the table which follows, together with figures for the years 1969-70 to 1972-73. The national accounting presentation of the budget is shown in order to be consistent with other transactions figures given in this chapter.

It should be noted that some transactions undertaken by authorities covered by the Budget are not reflected in the change in cash balances, usually because they are not cash transactions or because a receipt and a payment are offset against each other so that only a net amount is included in published totals. The national accounting presentation of the Budget includes these additional transactions, further details of which may be found in the Appendix to the *Treasury Information Bulletin*, August 1970.

RECEIPTS AND OUTLAY OF THE AUSTRALIAN GOVERNMENT
(\$ million)

(Source: Supplement to the *Treasury Information Bulletin*, August 1973)

	1969-70	1970-71	1971-72	1972-73	1973-74 Budget Estimate
Outlay—					
Net expenditure on goods and services—					
Current	1,813	1,981	2,186	2,386	2,645
Capital(a)	183	218	218	230	311
Total	1,996	2,199	2,404	2,616	2,956
Transfer payments—					
Cash benefits to persons	1,589	1,762	2,047	2,542	3,049
Grants to States	1,631	2,217	2,383	2,764	3,331
Interest paid	546	576	616	674	704
Transfers overseas	179	184	205	252	289
Subsidies	247	308	384	325	318
Grants for private capital purposes	34	37	42	53	89
Unfunded employee retirement benefits . . . . .	..	..	..	..	34
Purchases of existing assets	6	10	28	17	28
Total	4,231	5,093	5,705	6,627	7,843
Total expenditure	6,227	7,292	8,109	9,243	10,799
Net advances—					
States	669	521	587	663	846
Australian Government authorities	271	341	375	342	439
Other sectors	(b)221	(b)-17	(b)10	(b)-17	84
Total	1,161	845	972	987	1,369
Total outlay	7,387	8,137	9,081	10,230	12,168
Receipts—					
Taxation—					
Indirect taxes	2,247	2,505	2,530	2,634	3,128
Income tax on companies	1,197	1,444	1,535	1,634	1,943
Income tax on persons	2,855	3,175	3,765	4,085	5,173
Estate and gift duties	80	78	76	73	68
Other direct taxes, fees, fines, etc.	47	48	60	66	69
Unfunded employee retirement contributions . . . . .	..	..	..	1	25
Total	6,426	7,249	7,966	8,492	10,405
Other receipts—					
Interest, rent and dividends	722	801	885	951	1,007
Public enterprises income	34	53	55	31	13
Net sales of existing assets(c)	12	23	41	47	56
Total	768	877	981	1,028	1,076
Total receipts	7,195	8,127	8,947	9,521	11,481
Deficit	191	10	134	709	687

(a) Expenditure on new fixed assets plus increase in stocks less sales of previously rented houses. (b) Includes net advances to the Australian Wheat Board which in the past has been treated as financing transactions and thus formed part of the deficit. (c) Excludes sales of previously rented houses.

Financing of the Australian Government deficit

The deficit shown in the last line of the preceding table represents the net excess of Budget outlay over receipts. In other words, the estimated deficit shown for 1973-74 represents the Australian Government budget sector's 'financing requirements', and the actual deficits shown for earlier years represents the net outcome of the financing transactions of the budget sub-sector. Most such transactions involve the issue, repurchase, redemption or acquisition of Australian Government securities, but some involve or are represented by changes in other assets or liabilities of the Australian Government.

Specifically the deficit is financed as follows.

Net sales of Australian Government securities (new issues, *less* redemptions, *less* net purchases from Australian Government balances in the Trust Fund);

less net purchases of other investments from Australian Government balances in the Trust Fund

plus minor items of indebtedness (such as borrowing by Australian Capital Territory and Northern Territory housing trust accounts)

less net additions to cash balances, and funds provided for the International Monetary Fund and the Australian Wheat Board.

The following table summarises the financing transactions of the Australian Government budget sector for recent years. Further details of Australian Government loan transactions and of government securities on issue on account of the Australian Government and the States are given in a later section of this chapter.

AUSTRALIAN GOVERNMENT FINANCING TRANSACTIONS

(\$ million)

(Source: Statement No. 7 attached to the *Budget Speech*, 1973-74)

	1968-69	1969-70	1970-71	1971-72	1972-73
Overseas—					
Credit arrangements for defence purchases in the United States of America	91	51	64	46	51
Less—repayments	37	54	57	63	59
Net drawings	55	-3	7	-16	-8
Aircraft loans for Qantas and Australian National Airlines Commission	15	11	47	85	31
Less—repayments	27	27	28	33	38
Net drawings	-12	-16	20	52	-7
Other overseas loan proceeds	169	48	15	26	28
Less—redemptions, etc.	69	160	87	109	78
Net proceeds	100	-112	-72	-83	-50
<i>Total net proceeds overseas</i>	142	-131	-46	-47	-66
Funds provided for International Monetary Fund	-5	..	-37	..	..
Australia—					
Proceeds of loans raised in Australia	616	678	770	917	971
Less—redemptions, etc.	235	414	566	197	232
Net proceeds of loans raised in Australia	381	263	205	720	739
Net change in Treasury Notes on issue	-68	47	18	-10	165
	313	310	222	711	904
Other financing transactions	62	45	27	38	46
Residual Financing—					
Net increase in Treasury Bills on issue	-127	-14	..	..	..
Use of cash balances . . . . .	..	-19	-157	-567	-175
<i>Total residual financing</i>	-127	-33	-157	-567	-175
<i>Total Australian financing transactions</i>	248	322	92	181	775
Total financing transactions	385	191	10	134	709

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT

In addition to the group of authorities of the Australian Government whose transactions are covered by the Budget (i.e. itemised in the Consolidated Revenue Fund or recorded in a Trust Fund), there are a number of organisations owned or controlled by the Australian Government whose transactions do not, for the most part, pass through the Public Account. This category consists largely of public enterprises such as the Post Office, Qantas, Trans-Australia Airlines, the Overseas Telecommunications Commission, the Australian Coastal Shipping Commission, the Snowy Mountains Hydro-electric Authority, the Reserve Bank and the Commonwealth Banking Corporation. Public enterprises, it

should be noted, are bodies which aim at covering the bulk of their expenses by revenue either from sales of goods and services (trading enterprises), or by charges for services and net interest receipts (financial enterprises). As well as these enterprises, there are other public authorities which record most of their transactions outside the Public Account but have only minor independent sources of revenue, and are financed almost entirely from funds voted to them each year from the Consolidated Revenue Fund. In order that the national accounting presentation may indicate as completely as possible the direct effect of the budget on demand, appropriations to this group of authorities are treated as final expenditure in the Budget. Authorities in this category include the Australian Broadcasting Commission, Australian National University, National Capital Development Commission, and the Australian Atomic Energy Commission.

The transactions of Australian Government bodies not covered by the Budget may be brought together and consolidated with the transactions recorded in the Budget to yield figures of the transactions of all authorities of the Australian Government. The remaining tables in this section have been prepared on that basis. These tables for all authorities of the Australian Government exclude borrowing and the corresponding advances in respect of State works programs: borrowing by the Australian Government on behalf of the States is treated as borrowing by the States, and recorded in the table of receipts and outlay of State authorities given in the next section.

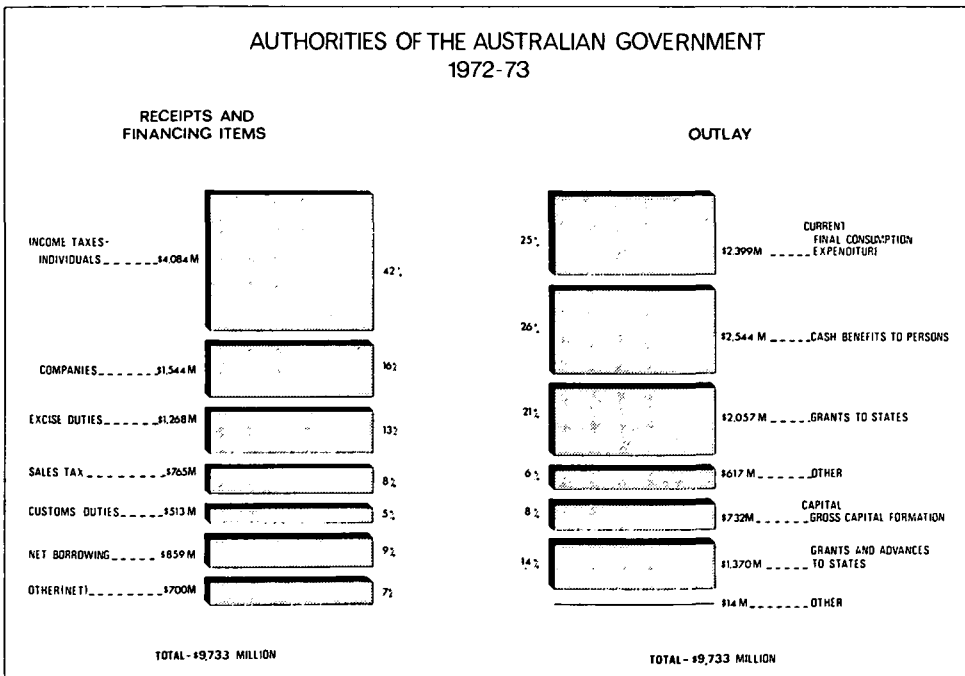


PLATE 39

Summary of receipts and outlay

The receipts and outlay of all authorities of the Australian Government for the latest five-year period are given in the following table.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT^(a): RECEIPTS AND OUTLAY
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Current receipts—					
Taxes, fees, fines, etc.	5,528	6,380	7,183	7,937	8,469
Income from public enterprises	194	206	229	304	310
Interest, etc., received	45	50	60	62	73
<i>Total current receipts</i>	<i>5,767</i>	<i>6,636</i>	<i>7,472</i>	<i>8,303</i>	<i>8,852</i>
Capital receipts—					
Depreciation allowances	157	177	192	207	221
Net sale of securities—					
Australian Government securities—					
Australia	177	299	247	721	904
Overseas	142	-131	-45	-47	-66
Public corporation securities	-1	15	-8	7	29
Other funds available (including errors and omissions)	37	110	20	3	-1
<i>Total capital receipts</i>	<i>512</i>	<i>470</i>	<i>406</i>	<i>891</i>	<i>1,087</i>
Reduction in cash and bank balances	-21	-36	-103	-587	-207
Total receipts	6,258	7,070	7,774	8,608	9,733
OUTLAY					
Current outlay—					
Final consumption expenditure	1,720	1,788	1,984	2,156	2,399
Interest, etc., paid	26	23	12	-14	12
Cash benefits to persons	1,397	1,590	1,764	2,048	2,544
Subsidies	208	242	262	359	300
Transfers overseas	158	179	184	205	252
Grants for private capital purposes	32	34	37	42	53
Grants to States	1,167	1,320	1,663	1,756	2,057
<i>Total current outlay</i>	<i>4,709</i>	<i>5,175</i>	<i>5,905</i>	<i>6,553</i>	<i>7,617</i>
Capital outlay—					
Expenditure on new fixed assets	560	642	690	833	800
Expenditure on existing assets	3	-5	-9	-5	-23
Increase in stocks . . . . .	..	2	52	-25	-45
Advances to other sectors	95	275	61	40	14
Grants to States	264	311	554	626	706
Advances to States	627	669	521	587	664
<i>Total capital outlay</i>	<i>1,549</i>	<i>1,895</i>	<i>1,869</i>	<i>2,055</i>	<i>2,116</i>
Total outlay	6,258	7,070	7,774	8,608	9,733

(a) Excluding financial enterprises.

Outlay classified by economic type and purpose

In the following two tables the outlay of all authorities of the Australian Government is shown classified by economic type and purpose. The table on this page presents for 1972-73 the outlay according to purpose, classified by economic type, showing the Government's own demand for goods and services and the redistributive effect of its outlay.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: OUTLAY, CLASSIFIED BY ECONOMIC TYPE AND PURPOSE, 1972-73
(\$ million)

Purpose	Economic type					
	Gross capital formation			Transfer payments		
	Final consumption expenditure	Expenditure on new fixed assets	Other(a)	Interest payments(b)	Transfers to persons	Subsidies
General public services—						
General administration, n.e.c.	316	32	..	..	..	..
External affairs	50	15	..	..	..	..
Law, order and public safety	37	3	..	..	..	..
General research	74	9	..	..	..	..
<i>Total general public services</i>	<i>477</i>	<i>60</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>
Defence	1,190	..	2	..	..	..
Education	81	30	-1	..	73	..
Health	158	20	..	..	581	1
Social security and welfare	76	3	..	..	1,871	..
Housing and community amenities	17	36	-39	..	..	..
Recreation and related cultural services	100	14	1	..	..	..
Economic services—						
General administration, regulation and research	105	6	1	..	7	14
Agriculture, forestry and fishing	75	16	-48	..	..	160
Mining, manufacturing and construction	12	2	1	..	..	120
Electricity and water supply	..	27	-2	..	..	..
Transport and communication	65	592	15	..	..	2
Other economic services	17	..	..	..	..	26
<i>Total economic services</i>	<i>273</i>	<i>643</i>	<i>-34</i>	<i>..</i>	<i>7</i>	<i>322</i>
Other purposes—						
General purpose inter-authority transfers	..	..	..	..	..	..
Natural disaster relief	..	..	..	..	..	..
Interest	..	..	..	15	..	..
Total	2,370	804	-70	15	2,533	323

(a) Includes increase in stocks, expenditure on existing assets (net), and expenditure on land (net). (b) Includes cash benefits to persons and unfunded employee retirement benefits.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: OUTLAY, CLASSIFIED BY
ECONOMIC TYPE AND PURPOSE, 1972-73—*continued*

(\$ million)

Purpose	<i>Economic type</i>					Total
	<i>Transfer payments</i>		<i>Net advances</i>			
	<i>Transfers overseas</i>	<i>Grants for private capital purposes</i>	<i>Grants to States</i>	<i>to States</i>	<i>to other sectors</i>	
General public services—						
General administration, n.e.c.	2	..	..	..	..	351
External affairs	229	..	..	..	10	304
Law, order and public safety	..	..	..	..	..	40
General research	..	..	6	..	..	90
<i>Total general public services</i>	<i>231</i>	..	<i>6</i>	..	<i>10</i>	<i>785</i>
Defence	20	..	..	6	..	1,218
Education	..	1	259	..	..	444
Health	..	1	21	..	..	781
Social security and welfare	..	27	126	..	1	2,103
Housing and community amenities	..	24	19	-10	41	86
Recreation and related cultural services	..	..	..	..	1	115
Economic services—						
General administration, regulation, and research	..	2	2	..	..	136
Agriculture, forestry and fishing	..	..	43	51	-69	228
Mining, manufacturing and construction	..	..	..	..	-1	134
Electricity and water supply	..	..	2	14	..	41
Transport and communication	..	..	292	-4	-2	960
Other economic services	..	..	..	..	17	59
<i>Total economic services</i>	<i>1</i>	<i>3</i>	<i>339</i>	<i>61</i>	<i>-56</i>	<i>1,558</i>
Other purposes—						
General purpose inter-authority transfers	..	..	2,012	616	..	2,628
Natural disaster relief	..	..	..	-5	..	-5
Interest	..	..	..	..	..	15
Total	252	55	2,782	668	4	9,728

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: OUTLAY, CLASSIFIED BY PURPOSE
(*\$ million*)

<i>Purpose</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
General public services—					
General administration, n.e.c.	201.8	216.6	249.6	313.7	348.4
External affairs	183.2	197.9	244.1	239.9	277.1
Law, order and public safety	19.8	23.2	27.2	33.6	41.3
Immigration	70.0	76.1	73.9	59.9	47.8
General research	52.7	61.9	74.9	80.8	88.9
<i>Total general public services</i>	<i>527.4</i>	<i>575.6</i>	<i>669.7</i>	<i>728.0</i>	<i>803.4</i>
Defence	1,105.2	1,050.6	1,097.6	1,147.7	1,233.4
Education—					
General administration, regulation and research	4.0	5.3	7.1	8.4	10.9
Transportation of students	0.4	0.5	0.8	0.8	1.0
Primary and secondary education	35.7	60.6	84.5	99.4	128.2
Vocational training	9.5	11.8	14.6	9.8	18.6
University education	108.9	116.7	136.9	159.3	193.3
Other higher education	23.1	37.7	41.7	55.7	69.8
Other education programs	6.6	10.7	11.7	12.7	20.2
<i>Total education</i>	<i>188.3</i>	<i>243.3</i>	<i>297.3</i>	<i>346.0</i>	<i>441.9</i>
Health—					
General administration, regulation and research	12.1	14.5	17.9	22.7	25.3
Hospital and clinical services	176.3	210.3	233.6	297.1	349.5
Other health services	207.1	236.9	308.0	366.7	405.7
Ambulance services	0.1	0.2	0.4	0.3	0.3
<i>Total health</i>	<i>395.6</i>	<i>461.9</i>	<i>559.9</i>	<i>686.7</i>	<i>780.8</i>
Social security and welfare—					
Care of and assistance to—					
Aged persons			610.0	713.9	922.2
Incapacitated and handicapped persons	575.9	664.7	126.4	148.1	197.0
Unemployed and sick persons	16.8	18.6	23.5	71.8	181.4
Ex-servicemen	232.6	240.6	256.2	281.9	320.1
Widowed and deserted spouses	70.2	83.6	94.2	110.5	150.3
Families and children	201.5	228.5	207.4	225.7	262.8
Other social security and welfare services	27.0	34.2	61.4	45.8	65.8
<i>Total social security, etc.</i>	<i>1,124.1</i>	<i>1,270.3</i>	<i>1,379.2</i>	<i>1,597.6</i>	<i>2,100.6</i>
Housing and community amenities—					
Housing	163.7	174.6	195.6	63.6	75.4
Community and regional development	11.3	8.1	9.0	14.4	-1.5
Protection of the environment	3.4	3.8	5.3	6.9	10.0
Community amenities, n.e.c.	..	0.6	..	..	0.3
<i>Total housing, etc.</i>	<i>178.4</i>	<i>187.1</i>	<i>209.9</i>	<i>85.0</i>	<i>84.2</i>
Recreation and related cultural services—					
Cultural facilities	4.6	6.4	6.8	8.7	10.4
Support of the creative and performing arts	1.8	2.9	4.0	4.9	6.8
Broadcasting services and film production	58.4	61.5	72.6	83.6	90.9
Recreational facilities and services	4.7	5.6	5.3	5.7	6.5
Other programs	1.8	2.2	1.1	0.7	0.6
<i>Total recreation, etc.</i>	<i>71.4</i>	<i>78.5</i>	<i>89.9</i>	<i>103.9</i>	<i>115.2</i>
Economic services—					
General administration, regulation and research	52.5	57.9	68.5	85.4	95.1
Agriculture, forestry and fishing	216.5	425.9	262.0	294.2	238.2
Mining, manufacturing and construction	47.9	64.6	67.2	107.5	134.3
Electricity and water supply	42.9	56.3	46.9	34.5	43.2
Transport and communication	661.9	782.2	839.3	981.0	968.0
Other economic services	29.8	34.9	61.8	51.8	59.3
<i>Total economic services</i>	<i>1,051.5</i>	<i>1,421.8</i>	<i>1,345.7</i>	<i>1,554.4</i>	<i>1,538.1</i>
Other purposes—					
General purpose inter-authority transfers	1,569.9	1,745.5	2,097.8	2,370.4	2,628.4
Natural disaster relief	19.8	11.6	15.1	2.4	-5.2
Interest	26.3	23.2	12.2	-14.4	12.1
Other	..	..	..	-0.1	..
<i>Total other purposes</i>	<i>1,616.0</i>	<i>1,780.1</i>	<i>2,125.1</i>	<i>2,358.3</i>	<i>2,635.3</i>
Total outlay, all purposes	6,258.1	7,069.9	7,774.5	8,607.9	9,732.6
Of which—					
Current outlay	4,708.9	5,174.5	5,904.7	6,552.2	7,615.5
Capital outlay	1,549.2	1,895.4	1,869.8	2,054.7	2,117.1

Main components of outlay

The following tables give further details of the main components of the outlay of authorities of the Australian Government, i.e. expenditure on goods and services, cash benefits, subsidies and payments to the States. More detailed information relating to outlay under specific function headings such as defence, education, health and welfare, may be found in the relevant chapters of this Year Book.

Expenditure on goods and services

Final consumption expenditure by authorities of the Australian Government (i.e. the demand by these authorities for the output of the producing sectors of the economy) consists essentially of purchases of goods and services for current consumption *less* any charges made by the authorities for goods and services which they themselves provide, together with expenditure on the acquisition of new fixed assets and existing assets (net of any sales of assets) and any change in stocks. The following tables show functional dissections of net current expenditure on goods and services and expenditure on new fixed assets for the five years ended 1972-73.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT, FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE (\$ million)

Purpose	1968-69	1969-70	1970-71	1971-72	1972-73
General public services—					
General administration	176	201	233	279	315
External affairs	30	38	40	45	50
Law, order and public safety	18	21	25	31	38
Immigration	55	60	61	52	42
General research	42	50	57	66	75
<i>Total general public services</i>	<i>321</i>	<i>370</i>	<i>417</i>	<i>474</i>	<i>520</i>
Defence	1,017	989	1,073	1,108	1,177
Education	35	41	55	64	82
Health	90	101	117	139	160
Social security and welfare	36	44	50	60	74
Housing and community amenities	11	10	11	12	17
Recreation and related cultural services	60	67	77	87	100
Economic services—					
General administration, regulation and research	35	41	49	59	70
Agriculture, forestry, fishing	58	59	66	72	105
Mining, manufacturing and construction	11	11	10	11	12
Transport and communication	36	41	47	56	65
Other	11	13	13	15	18
<i>Total economic services</i>	<i>152</i>	<i>165</i>	<i>185</i>	<i>212</i>	<i>269</i>
Other purposes . . . . .	..	..	..	..	..
<i>Grand total</i>	<i>1,720</i>	<i>1,788</i>	<i>1,984</i>	<i>2,156</i>	<i>2,399</i>

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: EXPENDITURE ON NEW FIXED ASSETS, CLASSIFIED BY PURPOSE

I. GENERAL GOVERNMENT

(\$ million)

Purpose	1968-69	1969-70	1970-71	1971-72	1972-73
General public services—					
General administration	22.4	18.5	15.8	18.4	32.4
External affairs	7.0	3.4	2.3	3.5	15.4
Law, order and public safety	1.6	1.5	2.0	2.6	3.0
Immigration	3.8	4.9	2.0	0.6	0.4
General research	7.2	8.6	13.0	10.0	8.0
<i>Total general public services</i>	<i>42.0</i>	<i>36.9</i>	<i>35.1</i>	<i>35.2</i>	<i>59.2</i>
Education—					
General administration, regulation and research	0.3	0.4	0.2	0.3	..
Transportation of students . . . . .	..	..	..	..	..
Primary and secondary education	5.5	8.8	9.5	13.1	14.6
Vocational training	0.2	0.1	..	..	2.8
University education	6.6	4.4	7.1	7.2	8.8
Other higher education	0.8	1.6	3.4	4.0	1.7
Other education programs	0.4	2.8	0.9	0.4	2.3
<i>Total education</i>	<i>13.8</i>	<i>18.1</i>	<i>21.1</i>	<i>25.0</i>	<i>30.2</i>

EXPENDITURE ON NEW FIXED ASSETS, CLASSIFIED BY PURPOSE—*continued*

I. GENERAL GOVERNMENT—*continued*

(\$ million)

Purpose	1968-69	1969-70	1970-71	1971-72	1972-73
Health—					
General administration, regulation and research	0.6	0.6	0.4	0.6	1.0
Hospital and clinical services	4.2	5.7	9.7	20.7	17.0
Other health services	1.1	1.2	6.0	1.0	1.5
Ambulance services	..	0.1	0.3	0.2	0.2
<i>Total health</i>	5.9	7.6	16.4	22.4	19.6
Social security and welfare—					
Care of and assistance to—					
Aged persons	..	..	..	..	0.1
Incapacitated and handicapped persons	0.8	..	0.1	..	0.1
Unemployed and sick persons	..	..	..	..	..
Ex-servicemen	0.3	0.3	2.2	0.2	0.3
Widowed and deserted spouses	..	..	..	..	..
Families and children	..	..	..	..	..
Other social security and welfare programs	1.4	2.0	3.9	2.4	2.1
<i>Total social security, etc.</i>	2.4	2.4	6.2	2.6	2.5
Housing and community amenities—					
Housing	3.2	5.0	2.3	-1.6	-0.9
Community and regional development	12.0	11.0	16.4	22.3	25.6
Protection of the environment	1.4	1.4	2.3	3.8	6.6
Community amenities, n.e.c.	0.3	0.8	0.3	..	..
<i>Total housing, etc.</i>	16.9	18.2	21.3	24.4	31.3
Recreation and related cultural services—					
Cultural facilities	0.8	1.7	0.9	1.8	1.3
Support of the creative and performing arts	..	..	..	..	..
Broadcasting services and film production	7.2	5.1	9.5	11.7	10.5
Recreational facilities and services	0.8	1.1	0.9	0.9	1.4
Other programs	1.7	2.0	0.9	0.6	0.2
<i>Total recreation, etc.</i>	10.5	9.9	12.2	15.0	12.9
Economic services—					
General administration, regulation and research	4.6	3.7	3.7	5.3	4.7
Agriculture, forestry, fishing	0.9	2.2	2.0	3.5	19.9
Mining, manufacturing and construction	1.0	1.1	0.6	0.6	0.5
Electricity and water supply	3.0	5.1	6.6	7.7	3.7
Transport and communication	57.1	59.9	73.7	57.9	45.5
Other economic services	0.2	0.4	0.3	0.2	0.1
<i>Total economic services</i>	66.9	72.3	86.9	75.2	74.4
Other purposes	..	..	..	..	..
<i>Total general government</i>	158.5	165.4	199.3	199.9	230.1

II. PUBLIC ENTERPRISES

(\$ million)

Public trading enterprises—					
General public services—Immigration	5.8	5.7	5.3	1.6	0.8
Housing and community amenities—Housing	6.3	4.1	4.7	5.6	2.5
Recreation and related cultural services—Cultural facilities	..	..	..	..	..
Economic services—					
Manufacturing activities	0.7	0.8	1.2	1.4	1.8
Electricity, water supply	36.4	41.1	36.5	23.5	22.9
Transport and communication—					
Air transport	23.1	27.1	46.4	137.8	38.9
Rail transport	9.5	10.6	13.3	17.1	10.7
Sea transport	12.1	35.5	6.6	16.3	20.1
Road transport	1.7	1.6	2.2	2.5	2.2
Pipelines	..	..	..	..	10.4
Communications services	306.4	350.5	374.4	426.4	459.6
<i>Total</i>	352.7	425.2	442.9	600.1	541.9
Other economic services	-0.1	..	0.1	0.4	0.4
<i>Total public trading enterprises</i>	401.9	476.9	490.8	632.6	570.3
Public financial enterprises	14.4	15.4	14.4	22.3	29.1
<i>Total public enterprises</i>	416.2	492.4	505.2	654.9	599.3

Cash benefits to persons

Total payments of cash benefits to persons during the latest five years are shown in the next table. Further information relating to items in this table is given in the appropriate chapter of this Year Book, and figures of cash benefits paid to persons in each State and Territory may be found in *Public Authority Finance: Authorities of the Australian Government*.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: CASH BENEFITS TO PERSONS
(S'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
General public services—					
Immigration—					
Maintenance of migrant families	4,286	4,626	4,927	4,298	4,385
Hostel tariffs of unemployed migrants	648	678	729	602	252
Total	4,934	5,304	5,656	4,900	4,637
General research—					
Queen Elizabeth fellowships	190	195	226	282	330
<i>Total general public services</i>	<i>5,124</i>	<i>5,499</i>	<i>5,882</i>	<i>5,182</i>	<i>4,967</i>
Education—					
Primary and secondary education—					
Student assistance	6,558	6,738	6,791	6,924	8,663
Australian Capital Territory and Northern Territory					
scholarships and allowances	157	176	209	193	161
Assistance to isolated children . . . . .	..	..	..	..	2,588
Total	6,715	6,914	7,000	7,117	11,412
Vocational training—					
Student assistance	1,123	1,162	1,096	1,048	1,008
University education—					
Australian National University scholarships	1,094	1,218	1,346	1,295	1,261
Student assistance—					
post-graduate	3,588	4,526	5,209	5,888	6,671
under-graduate	16,268	18,160	22,519	28,127	36,827
Australian Agricultural Council scholarships	50	52	51	54	59
Wool research studentships	360	341	368	334	240
Forestry scholarships	57	66	67	69	76
Other	17	14	19	12	11
Total	21,434	24,377	29,579	35,779	45,145
Other higher education—					
Student assistance	1,001	1,628	2,793	3,552	5,397
Teaching scholarships at Canberra College of Advanced					
Education . . . . .	..	..	12	29	41
Commonwealth Teaching Service scholarships . . . . .	..	..	..	109	364
Pre-school teaching scholarships . . . . .	..	..	..	..	1,288
Total	1,001	1,628	2,805	3,690	7,090
Other education programs—					
Aboriginal study grants	62	190	326	474	631
Aboriginal secondary grants . . . . .	..	522	2,201	2,536	4,267
Soldiers' children education scheme	3,154	3,203	3,407	3,625	3,573
Other . . . . .	..	10	5	12	53
Total	3,216	3,925	5,939	6,647	8,524
<i>Total education</i>	<i>33,489</i>	<i>38,006</i>	<i>46,419</i>	<i>54,280</i>	<i>73,179</i>
Health—					
Hospital and clinical services—					
Hospital benefits, n.e.c.	29,779	40,258	49,807	67,305	82,270
Hospital benefits for pensioners	24,520	24,163	23,555	24,065	23,768
Nursing home benefits	31,643	46,960	49,477	70,593	92,836
Tuberculosis campaign—allowances	921	771	659	630	780
Rehabilitation of ex-servicemen . . . . .	..	..	..	..	134
Total	86,863	112,152	123,498	162,593	199,788
Other health services—					
Medical benefits for pensioners	16,912	19,224	19,904	27,804	30,822
Medical benefits, n.e.c.	49,556	56,863	95,604	132,574	160,238
Pharmaceutical benefits for pensioners	36,609	41,069	45,181	52,005	58,139
Pharmaceutical benefits, n.e.c.	81,764	95,650	115,094	121,263	119,493
Milk for school children	10,085	10,082	10,199	11,894	11,781
Domiciliary care . . . . .	..	..	..	..	1,022
Total	194,927	222,888	285,982	345,540	381,495
<i>Total health</i>	<i>281,789</i>	<i>335,040</i>	<i>409,480</i>	<i>508,133</i>	<i>581,283</i>

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT
CASH BENEFITS TO PERSONS—*continued*
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Social security and welfare—					
Assistance to aged persons—					
Age pensions	(a)558,587	(a)641,982	582,889	680,322	887,750
Delivered meals . . . . .	..	196	341	338	587
Personal care . . . . .	..	1,133	1,592	1,830	3,273
Total	n.a.	n.a.	584,822	682,490	891,610
Assistance to incapacitated and handicapped persons—					
Invalid pensions	n.a.	n.a.	119,387	138,194	184,699
Sheltered employment allowances	288	436	590	742	1,161
Handicapped children's benefits	76	485	456	438	429
Rehabilitation services	2,123	2,403	3,107	3,945	4,658
Total	n.a.	n.a.	123,540	143,319	190,947
Assistance to unemployed and sick persons—					
Unemployment benefits	9,268	8,868	10,795	25,997	46,553
Sickness benefits	5,531	7,146	10,262	15,906	26,610
Special benefits	2,031	2,578	2,420	2,851	4,368
Total	16,830	18,592	23,477	44,754	77,531
Assistance to ex-servicemen—					
War and service pensions and allowances	216,958	223,366	234,979	260,150	297,303
Other benefits	3,640	3,826	3,821	4,056	3,715
Total	220,598	227,192	238,800	264,206	301,018
Assistance to widowed and deserted spouses—					
Widows' pensions	69,080	81,753	90,514	104,627	140,505
Assistance to deserted wives	1,149	1,882	3,691	5,876	9,748
Total	70,229	83,635	94,205	110,503	150,253
Assistance to families and children—					
Child endowment	193,263	220,121	198,442	216,581	253,890
Maternity allowances	7,960	8,000	8,554	8,617	7,970
Total	201,223	228,121	206,996	225,198	261,860
Other social security and welfare programs—					
Funeral benefits	1,571	1,512	1,653	1,583	1,579
Telephone rental concessions	2,366	2,807	3,617	4,608	5,035
Emergency assistance to wool-growers . . . . .	..	..	21,327	187	..
Compassionate allowances	94	94	91	98	104
Other	374	50	139	121	216
Total	4,405	4,463	26,827	6,597	6,934
<i>Total social security and welfare</i>	<i>1,074,361</i>	<i>1,208,629</i>	<i>1,298,668</i>	<i>1,477,067</i>	<i>1,880,153</i>
Economic services—					
General administration, regulation and research—					
Stevedoring industry—attendance money, etc.	1,410	1,141	1,140	1,207	1,352
Coal mining industry—long service leave	930	1,018	1,097	1,285	2,012
Other	137	380	773	1,256	516
Total	2,477	2,539	3,010	3,748	3,880
Agriculture, forestry, fishing—					
War service land settlement—rent, remissions, etc.	88	90	51	30	9
<i>Total economic services</i>	<i>2,565</i>	<i>2,629</i>	<i>3,061</i>	<i>3,778</i>	<i>3,889</i>
Total	1,397,329	1,589,772	1,763,510	2,048,444	2,543,471

(a) Includes invalid pensions. Separate figures are not available for years prior to 1970-71.

Subsidies

The following table shows details of Australian Government outlay on subsidies and bounties. Other assistance to primary producers is included in, for example, tables relating to cash benefits and payments to the States, and additional information is given in Chapter 22, Rural Industry.

AUSTRALIAN GOVERNMENT AUTHORITIES: SUBSIDIES
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Housing and community amenities—					
Assistance to public housing bodies—					
Commonwealth-State housing agreement—contributions to rental losses	60	74	131	151	142
Economic services—					
Assistance to employers—					
Stevedoring industry assistance	9,121	9,322	12,289	15,709	14,623
Apprenticeship training	415	496	570	788	1,209
Total	9,536	9,818	12,859	16,497	15,832
Assistance to agricultural and pastoral enterprises—					
Dairy products subsidy	27,000	27,000	41,500	39,882	28,500
Wheat prices stabilisation payments	42,870	..	29,008	58,357	41,371
Phosphate fertilisers bounty	31,665	45,820	40,815	45,795	56,568
Nitrogenous fertilisers bounty	11,044	9,876	9,716	9,757	13,138
Cotton bounty	4,620	3,531	2,973	795	..
Processed milk products bounty	638	516	2,729	2,052	884
Poultry industry assistance	10,920	11,350	12,505	13,223	13,063
Egg industry assistance . . . . .	..	..	..	..	750
Devaluation compensation	34,764	29,000	21,000	7,204	175
Dried vine fruits stabilisation payments . . . . .	..	1,241	1,161	276	856
Wool marketing assistance . . . . .	..	..	2,900	4,100	2,481
Wool Commission subsidy . . . . .	..	..	..	130	339
Deficiency payments for wool . . . . .	..	..	..	52,671	-1,640
Apple and pear stabilisation payments . . . . .	..	..	..	2,584	3,858
Northern Territory railway freight concessions	113	87	114	80	131
Northern Territory superphosphate sea subsidy	23	50	55	194	142
Northern Territory transport of stud stock	175	245	129	100	69
Total	163,832	128,716	164,605	237,200	160,685
Assistance to mining enterprises—					
Oil search subsidy	12,333	14,298	9,643	7,536	8,084
Gold mining industry assistance	1,791	1,812	2,828	1,712	295
Pyrites bounty . . . . .	..	..	568	1,205	972
Total	14,124	16,110	13,039	10,453	9,351
Assistance to manufacturing enterprises—					
Sulphate of ammonia bounty	430	1,081	538	-2	..
Sulphuric acid bounty	988	740	489	896	880
Agricultural tractor bounty	2,249	1,757	2,750	3,160	2,800
Cellulose acetate flake bounty	179	276	200	166	171
Urea bounty	424	496	449	..	..
Book bounty . . . . .	..	1,374	3,217	3,181	2,984
Industrial research and development grants	5,300	8,915	16,250	13,000	14,000
Ship construction subsidy	12,551	18,758	18,646	13,396	30,632
Export incentive grants . . . . .	..	..	..	50,674(a)	58,340(a)
Devaluation compensation	862	1,069	600	23	..
Metal-working machine tools bounty . . . . .	..	..	..	..	657
Serum laboratories . . . . .	..	..	..	479	607
Other . . . . .	..	..	..	..	..
Total	22,983	34,466	43,139	84,973	111,071
Assistance to air transport services—					
Air services subsidy	1,780	1,800	2,000	1,900	2,000
Assistance to sea transport services—					
Northern Territory coastal shipping service subsidy	24	27	12	36	24
Assistance to King Island shipping service	141	150	160	143	..
South American shipping service subsidy	180	157	113	38	..
Total	345	334	285	217	24
Other assistance to enterprises—					
Petrol prices equalisation	17,948	20,625	21,737	23,064	23,305
Northern Territory petrol prices equalisation	1,316	1,742	2,092	2,165	2,393
Total	19,264	22,367	23,829	25,229	25,698
Natural disaster relief—					
Northern Territory drought relief freight concessions	2	239	149	210	27
Adjustment to payable basis	-24,400	27,500	1,800	-18,300	-24,800
Total	207,526	241,424	261,836	358,530	300,030

(a) Offset against gross receipts of pay-roll tax prior to 1971-72.

Grants and advances to the States

Australian Government financial assistance to the States takes two main forms: (i) direct financial assistance in the form of grants for general and specific purposes, and (ii) assistance for developmental and other specific purposes in the form of repayable advances. Some information about the more important or most recent of these forms of financial assistance is given on pages 577-85, but for more complete information reference should be made to the Australian Government Budget paper *Payments to or for the States*. Further information also appears in chapters of this Year Book dealing with the specific function which the payments are designed to serve.

Grants to the States

The following tables show details of grants to the States for general and specific purposes. More detailed figures appear in *Public Authority Finance: Authorities of the Australian Government*.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: GRANTS TO THE STATES, 1972-73
(S'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
FOR CURRENT PURPOSES							
General public services	2,149	1,650	669	870	395	183	5,917
Education	52,955	45,843	20,113	13,344	12,794	4,578	149,627
Health	3,867	3,285	2,361	929	1,070	298	11,811
Social security and welfare	38,764	26,213	18,162	9,970	9,811	6,018	108,938
Housing and community amenities	2,292	1,679	527	1,093	771	388	6,750
Economic services	2,975	2,712	2,290	994	1,071	482	10,524
Other purposes—							
Financial assistance grants	521,963	396,087	271,946	181,430	196,369	79,498	1,647,293
Special grants . . . . .	..	..	10,000	21,900	..	7,600	38,600
Payments under Financial Agreement—							
Interest on States' debt	5,835	4,254	2,192	1,408	947	534	15,170
Sinking fund on States' debt	9,197	6,809	3,636	3,689	2,715	1,934	27,979
Debt charges assistance	11,399	8,348	4,576	4,487	3,317	2,385	34,512
Natural disaster payments . . . . .	..	40	..	..	..	..	40
<i>Total other purposes</i>	<i>548,394</i>	<i>415,538</i>	<i>292,350</i>	<i>212,014</i>	<i>203,348</i>	<i>91,951</i>	<i>1,763,594</i>
Total grants for current purposes	651,396	496,920	336,472	239,214	229,260	103,898	2,057,161
FOR CAPITAL PURPOSES							
General public services	10	..	14	..	..	..	24
Education	35,988	29,498	13,608	11,427	10,693	4,355	105,569
Health	945	1,763	1,998	1,266	887	292	7,150
Social security and welfare	2,884	1,701	1,434	521	972	171	7,683
Housing and community amenities	2,624	377	3,686	776	4,088	100	11,651
Economic services—							
Soil and water resources management	6,990	1,122	6,976	1,337	1,049	172	17,646
Assistance to agricultural and pastoral							
activities	3,765	3,537	2,360	2,050	2,170	665	14,547
Electricity, gas, water supply . . . . .	..	..	1,500	..	..	..	1,500
Rail transport . . . . .	..	..	..	425	515	476	1,416
Sea transport . . . . .	..	..	..	2,500	..	557	3,057
Road transport	85,590	57,240	57,624	29,000	45,835	12,150	287,439
<i>Total economic services</i>	<i>96,345</i>	<i>61,899</i>	<i>68,460</i>	<i>35,312</i>	<i>49,569</i>	<i>14,020</i>	<i>325,605</i>
Other purposes—							
Capital assistance	79,051	63,405	31,429	34,074	23,213	17,367	248,539
Total grants for capital purposes	217,846	158,643	120,629	83,376	89,422	36,305	706,221
TOTAL GRANTS							
Total grants to the States	869,242	655,563	457,101	322,590	318,682	140,203	2,763,382

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: GRANTS TO THE STATES
(**\$'000**)

	1968-69	1969-70	1970-71	1971-72	1972-73
FOR CURRENT PURPOSES					
General public services	2,995	3,562	4,320	4,491	5,917
Education	49,967	73,559	99,146	115,909	149,627
Health	11,622	10,715	10,887	10,186	11,811
Social security and welfare	29	177	558	28,164	108,938
Housing and community amenities . . . . .	..	..	..	4,000	6,750
Economic services	3,836	4,708	6,416	8,163	10,524
Other purposes—					
Financial assistance grants	1,018,193	1,141,319	1,418,518	1,440,878	1,647,293
Special grants	17,392	21,900	18,680	23,800	38,600
Special revenue assistance	14,000	16,000	43,000	55,000	..
Payments under Financial Agreement—					
Interest on State's debt	15,170	15,170	15,170	15,170	15,170
Sinking fund on State's debt	21,619	23,271	24,550	26,323	27,979
Debt charges assistance . . . . .	..	..	11,504	23,008	34,512
Natural disaster payments	11,755	9,279	10,003	1,188	40
<i>Total other purposes</i>	<i>1,098,129</i>	<i>1,226,939</i>	<i>1,541,425</i>	<i>1,585,367</i>	<i>1,763,594</i>
Total grants for current purposes	1,166,577	1,319,660	1,662,752	1,756,280	2,057,161
FOR CAPITAL PURPOSES					
General public services	446	65	142	372	24
Education	55,377	71,160	74,035	85,969	105,569
Health	5,861	7,053	5,404	6,127	7,150
Social security and welfare	125	1,081	5,419	8,703	7,683
Housing and community amenities	2,202	3,545	5,136	5,276	11,651
Economic services—					
Soil and water resources management	12,396	17,246	25,587	22,843	17,646
Assistance to agricultural and pastoral activities . . . . .	..	..	2,579	13,796	14,547
Electricity, gas, water supply . . . . .	..	..	..	..	1,500
Rail transport	11,436	11,835	3,850	2,841	1,416
Sea transport . . . . .	..	..	..	..	3,057
Road transport	176,065	199,332	227,049	255,464	287,439
<i>Total economic services</i>	<i>199,897</i>	<i>228,413</i>	<i>259,065</i>	<i>294,944</i>	<i>325,605</i>
Other purposes—					
Natural disaster relief . . . . .	..	130	5,091	5,494	..
Capital assistance . . . . .	..	..	200,000	219,000	248,539
Total grants for capital purposes	263,908	311,447	554,292	625,885	706,221
TOTAL GRANTS					
Total grants to the States	1,430,485	1,631,107	2,217,044	2,382,165	2,763,382

General purposes grants

The Financial Assistance Grants. Details of the financial assistance grants arrangements existing in 1972-73 and prior years are given in earlier issues of the Year Book (see No. 58, page 548). Revised arrangements to apply over the five years 1971-72 to 1975-76 are embodied in the *States Grants Act (No. 2) 1972*.

The financial assistance grants, which are the main general revenue grants to the States, will continue to increase each year in proportion to the increase in average wages in Australia as a whole in the year ending 31 March in the year of payment and to the increase in each States' population in the year ending 31 December in the year of payment and by a further 'betterment factor' of 1.8 per cent. Further grants are provided for over the years 1971-72 to 1975-76 to New South Wales and Victoria (equal to two dollars per head of their population, increasing to \$3.50 in 1972-73) to Queensland (by way of an annual addition of \$2 million to the base on which its grant is calculated) and to Western Australia (the amount being \$9.5 million in 1971-72, \$10.0 million in 1972-73, \$10.0 million in 1973-74 and \$0.4 million in 1974-75). Compensatory grants payable to the States for the loss of receipts duty are subject to increases under the formula. As from 1971-72,

financial assistance grants otherwise payable are to be reduced to offset the transfer of payroll taxation from the Australian Government to the States. The following table shows details of the calculation of the financial assistance grants for 1972-73.

CALCULATION OF FINANCIAL ASSISTANCE GRANTS FOR 1972-73
(S'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
'Base' grants—							
1971-72 Formula Grants	545,753	405,929	256,479	176,688	179,238	75,006	1,639,092
Plus additions to Queensland's base . . . . .	..	..	2,000	..	..	..	2,000
Plus share of \$22.3 million	8,203	5,687	3,081	2,122	2,267	901	22,261
Plus \$3 million differential growth adjustment (a)	1,000	744	462	318	340	135	3,000
less reduction to offset the transfer of payroll tax (b)	135,224	94,114	37,572	27,278	26,834	9,190	330,213
Total base grants	419,732	318,246	224,450	151,851	155,011	66,852	1,336,141
Plus additions under formula (c)	48,631	37,619	29,768	17,550	19,074	7,551	160,194
Plus additional \$112 million (d)	37,164	27,700	17,728	12,029	12,284	5,094	112,000
Plus additional grants to particular States	(e)16,436	(e)12,522	..	..(f)10,000	..	..	38,958
Total financial assistance grants	521,963	396,087	271,946	181,430	196,369	79,498	1,647,293

(a) Representing an allowance to compensate for the probable slightly lower growth rate in revenue from payroll tax as compared with that from financial assistance grants. (b) This amount was agreed between the Australian and State Treasuries and was formally determined by the Treasurer in accordance with the *States Grants Act 1971-1972*. (c) Calculated from population increases in each State in the year ended 31 December 1972 (the weighted average of these increases was 1.32 per cent), the increase in average wages in Australia as a whole in the year ending March 1973 (8.57 per cent) and the betterment factor of 1.8 per cent. (d) Additional grants agreed to at the June 1972 Premiers' Conference. (e) Equal to \$3.50 per capita of the State's population at 31 December 1972. (f) Made up of \$6.5 million additional grant reduced from the \$9.5 million paid in 1971-72 plus a temporary addition of \$3.5 million.

Special Grants. These grants are paid to the financially weaker States as supplements to the financial assistance grants. They are subject to annual recommendation by the Commonwealth Grants Commission. Each recommendation by the Commission for payment of a special grant consists of two parts: (i) One part is based on an estimate of the claimant State's financial need in the current financial year, and is treated as an advance payment subject to adjustment two years later when the Commission has compared in detail the audited budget results and standards of effort and of services provided in that year for both the claimant State and the States which the Commission takes as 'standard' (New South Wales and Victoria at present). (ii) The other part represents the final adjustment to the advance payment made two years earlier and is known as the completion payment. The following table shows special grants paid in recent years.

COMMONWEALTH GRANTS COMMISSION: SPECIAL GRANTS
(S'000)

	1969-70	1970-71	1971-72	1972-73	1973-74
Queensland—					
Advance payment . . . . .	..	..	9,000	10,000	10,000
Completion payment(a) . . . . .	..	..	..	9,750	(b)
Total . . . . .	..	..	9,000	19,750	(b)
South Australia—					
Advance payment . . . . .	..	5,000	7,000	13,500	15,000
Completion payment(a) . . . . .	..	7,500	4,900	8,500	(b)
Total . . . . .	..	12,500	11,900	22,000	(b)
Tasmania—					
Advance payment	22,000	(c)22,000	11,000	10,000	10,000
Completion payment(a)	-3,200	-2,400	-1,350	..	..
Total	18,800	(c)19,600	9,650	10,000	10,000
Grand total	18,800	32,100	30,550	51,750	(b)

(a) Adjustment to estimated grant paid two years previously. (b) Not yet determined. (c) The special grant recommended by the Commission was \$23,680,000. However, by agreement between the Australian Government and Tasmania \$10 million was added to Tasmania's 1970-71 financial assistance grant with a corresponding reduction in the special grant.

Minus sign (—) denotes excess of repayment.

Capital assistance grants. Also as part of the new revenue assistance arrangements, the Australian Government has undertaken to pay grants to the States to finance capital works. The grants replace State borrowings and thereby relieve them of debt charges they would otherwise have had to pay. These grants, which were authorised by the *States Grants (Capital Assistance) Act 1970*, totalled \$219.1 million in 1971-72, \$248.5 million in 1972-73, and will amount to \$278.3 million in 1973-74.

Specific purpose grants

Education

Payments to the States for universities were first introduced in 1951-52, and details of the States Grants (Universities) Acts under which they were continued are given in earlier issues of the Year Book (see No. 51 page 923 and No. 52 page 770). The *States Grants (Universities) Act (No. 2) 1972* authorised grants totalling approximately \$343.5 million for the Australian Government share of the agreed program of development of State universities for the years 1970 to 1972. (See also Chapter 19, Education.)

The Australian Government, in the 1970-72 triennium, is meeting the full cost of a \$13.5 million research program approved by the Australian Research Grants Committee. In addition, the Australian Government has agreed to finance a program of research costing \$20 million in the 1973-75 triennium.

Colleges of Advanced Education. Under the States Grants (Advanced Education) Acts, the Australian Government is providing financial assistance to the States of \$172.3 million during the 1973-75 triennium for recurrent and capital expenditures.

The *States Grants (Science Laboratories) Act 1971* extended for the four years ending 30 June 1975 the operation of the scheme outlined in Official Year Book No. 54 page 745. A total payment of \$43.3 million is provided for with equal annual authorisations.

Grants for buildings and equipment for use in technical training in schools and colleges conducted by States only are provided for under the *States Grants (Technical Training) Act 1971* which provides for the payment of up to \$36 million in the years 1970-71 to 1972-73.

Under the *States Grants (Teacher Colleges) Act 1970* the Australian Government provided for a maximum amount of \$30 million over the three years ending 30 June 1973 for the construction and equipping of teachers colleges.

Under the *States Grants (Secondary School Libraries) Act 1971* grants totalling \$30 million were authorised over the three years commencing 1 January 1972 to finance buildings and associated capital facilities for libraries in government and non-government secondary schools.

The *States Grants (Pre-school Teachers Colleges) Acts 1968, 1971 and 1972* provided for capital grants totalling \$2.5 million to 31 December 1973 for the purpose of increasing the physical capacity of approved pre-school teachers colleges.

The *States Grants (Independent Schools) Act 1972* authorised payments to the States, for transmission to independent schools, of contributions to school running costs at rates of \$50 per primary pupil and \$68 per secondary pupil per annum as from the beginning of 1972.

The *States Grants (Capital Assistance) Act 1971-72* provides an amount of \$20 million over the eighteen months January 1972 to July 1973 for capital expenditure on government primary and secondary schools.

Health

The *Tuberculosis Act 1948* provided for the reimbursement by the Australian Government of capital and maintenance expenditure incurred by the States in the provision of facilities for the diagnosis, treatment and control of tuberculosis.

The *States Grants (Mental Health Institutions) Act 1964-1970* authorised assistance to the States amounting to one-third of their total expenditure on building and equipping approved mental health institutions up to 30 June 1973.

Welfare

The *States Grants (Home Care) Act, 1969* the *States Grants (Paramedical Services) Act 1969* and the *States Grants (Nursing Homes) Act 1969* provide funds for a range of home care services, senior citizens' centres and nursing homes, mainly for aged persons. See Chapters 13, Social Security and Welfare Services, and 14, Public Health.

During December 1971 the Australian Government introduced a scheme of grants to the States for employment-creating activities in non-metropolitan areas. In 1972-73 these grants amounted to \$73 million.

*Development of resources and assistance to industry**Natural disasters*

Payments to the States for natural disaster relief (drought, flood, bushfire, earthquake, cyclone, mouse plague) include financial assistance to alleviate personal hardship and distress and to enable the States to meet budgetary problems arising from the effects on their revenues of such natural disasters. Such relief does not normally cover the full cost of restoration of private assets damaged by natural disasters, it being regarded as the individual's responsibility to provide against such losses by way of insurance. Apart from \$40,000 paid to Victoria for flood relief, no natural disaster assistance was paid to the States in 1972-73.

Water resources projects

Investigation and measurement of water resources. Australian Government commitments under the National Water Resources Development Programme up to 30 June 1973 included further grants of up to \$12.8 million to Queensland for Bundaberg Irrigation Works, further assistance of up to \$9 million to New South Wales for flood mitigation works on various of its coastal rivers, further grants of up to \$4.7 million to New South Wales and Queensland towards the cost of construction of a dam and associated works on Pike Creek in the border river region of the two States, \$2 million to Victoria towards the cost of construction of a pipeline and certain associated works to carry water from the River Murray to rural holdings in the Millewa district, and of \$15.1 million for additional investigation and measurement of State water resources in a three-year program commencing in 1973-74.

Fairbairn Dam. The *Queensland Grant (Maraboon Dam) Act* 1968 provided for grants to Queensland of up to \$20 million for the construction of a dam on the Nogoia River near Emerald.

Copeton Dam. Grants up to \$20 million will be made to New South Wales under the *New South Wales Grant (Gwydir River Dam) Act* 1969 for the construction of a dam on the Gwydir River near Copeton.

King River Dam. Under the *Victoria Grant (King River Dam) Act* 1969 the Australian Government is providing grants of up to \$4 million to Victoria for the construction of a dam on the King River south of Cheshunt.

Tailem Bend to Keith Pipeline. The construction of a pipeline and certain associated works to carry water from Tailem Bend to Keith in South Australia is being assisted financially by provision of grants up to \$6 million under the *South Australia Grant (Tailem Bend to Keith Pipeline) Act* 1969.

Ord River Irrigation Project. The *Western Australia (Ord River Irrigation) Act* 1968 provided for financial assistance to Western Australia on the basis of grants for dam construction and interest-bearing loans in respect of the irrigation works. Grants amounting to \$748,000 were paid during 1972-73.

River Murray Salinity Reduction. The *Victoria Grant (River Murray Salinity) Act* 1968 provides for grants to Victoria of up to \$3,600,000 for two salinity reduction projects on the River Murray.

Cressy-Longford Irrigation Works, Tasmania. Grants of up to \$750,000 to Tasmania for the construction of a channel system and associated works to carry water from the tailrace of the Poatina Power Station to supply rural holdings were provided for by the *Tasmania Grant (Cressy-Longford Irrigation Works) Act* 1969.

Assistance to Primary Industry

Marginal dairy farms reconstruction. Under the *Marginal Dairy Farms Agreement Act* 1970 the Australian Government may provide financial assistance to the States of up to \$25 million to enable the States to acquire marginal dairy farms from their owners by agreement, and dispose of them so as to encourage the most practicable and economic use of the land. The States are required to repay half of the sum paid out by the Australian Government under this scheme. Payments to the States in 1972-73 amounted to \$2,947,000.

Rural reconstruction. The *States Grants (Rural Reconstruction) Act* 1971 provides for the Australian Government to make available up to \$100 million over the period ended 30 June 1975 to finance schemes for farm debt reconstruction, farm build-up, and rehabilitation for persons forced to leave rural industry. After reviewing the scheme with the States, the Australian Government agreed to provide a further \$54 million. Three-quarters of the amount paid by the Australian Government over the period of the scheme is to be repaid by the States. Payments under the scheme in 1972-73 amounted to \$50.8 million.

*Transport and communication**Roads projects*

The *Commonwealth Aid Roads Act* 1969 provided for principal and supplementary grants totalling \$1,252,050,000 to be paid to the States over the five-year period commencing on 1 July 1969. Supplementary grants totalling \$52,050,000 are to be made to South Australia, Western Australia and Tasmania to assist in the transition from arrangements under the 1964 Act and the principal grant of \$1,200 million is to be allocated specifically as follows: Urban-arterial and sub-arterial roads \$600,690,000; Rural-arterial roads \$186,760,000 and other rural roads \$394,550,000; and planning and research \$18,000,000. Total grants of \$1,252,050,000 payable in the five-year period from 1969-70 to 1973-74 are to be allocated on the following basis: New South Wales, \$380,400,000; Victoria, \$254,400,000; Queensland, \$231,600,000; South Australia, \$129,000,000; Western Australia, \$200,400,000; and Tasmania, \$56,250,000. In addition, the Australian Government has agreed to provide up to \$2.5 million to South Australia towards the cost of completing the sealing of the Eyre Highway. For details of previous legislation see earlier year books.

Beef cattle roads. The *States Grants (Beef Cattle Roads) Act* 1968 provided for grants of \$39,500,000, \$9,500,000, and \$1,000,000 for Queensland, Western Australia, and South Australia respectively for a program of beef cattle road construction over a period of seven years commencing from 1 July 1967. Payments totalling \$7,750,000 were made to the States for this purpose during 1972-73.

Railway projects

The Australian Government is continuing to make grants to South Australia and Western Australia under its railway standardisation agreement with those two States. In addition, \$1,156,000 was paid to Tasmania to meet part of the cost of the construction of a new railway link between the existing system and Bell Bay, and upgrading the existing line from Launceston and associated works.

Shipping and Harbours

The Australian Government is providing up to \$1,355,000 to Tasmania under the *King Island Harbour Agreement Act* 1973, for the construction of port facilities at Grassy Harbour, King Island. In addition during 1972-73 the Australian Government made a grant of \$2.5 million to Western Australia for the purchase of a ship to maintain the State shipping service to Darwin.

Other functions

Housing. With the termination of the Commonwealth-State Housing Agreement, States' borrowings through the Loan Council are to be supplemented by: (i) cumulative grants of \$2.75 million a year payable for 30 years in respect of each of the years from 1971-72 to 1975-76 to replace interest concessions under the old agreement, the total sum over 30 years is to aggregate \$412.5 million; (ii) non-cumulative grants of \$1.25 million each year for the next five years, a total of \$6.25 million, for reducing rents of dwellings for families considered to have insufficient means to pay the rents ordinarily payable to State authorities in respect of these dwellings. In addition the Australian Government made \$6,550,000 available to the States during 1972-73 for the construction of additional rental dwellings.

Aboriginal Advancement. The *States Grants (Aboriginal Advancement) Acts* 1972 and 1973 provided grants of \$22 million to be paid to the States in 1972-73 for Aboriginal advancement particularly in the fields of housing, education and health. For 1973-74 an estimated \$31,175,000 will be paid to the States for Aboriginal advancement.

Development of Exmouth township, Western Australia. The Australian Government has assisted the Western Australian Government in financing the cost of developing a township at Exmouth in connection with the United States Naval Communications Station established at North West Cape. Payments to 30 June 1973 totalled \$4,182,000.

Other specific purpose grants

Contributions under Financial Agreement. Details of the Financial Agreement between the Australian Government and the States are given in Year Book No. 37, pages 685-90. Under this Agreement the Australian Government undertook to contribute \$15,169,824 per annum towards interest

payable on the State loan securities for a period of 58 years from 1 July 1927. This amount is distributed among the States as follows: New South Wales, \$5,834,822; Victoria, \$4,254,318; Queensland, \$2,192,470; South Australia, \$1,407,632; Western Australia, \$946,864; Tasmania, \$533,718. In addition, under the Financial Agreement the Australian Government agreed to make certain contributions to the National Debt Sinking Fund for redemption of State loan securities. Details of these are given on pages 629-32 of this chapter.

Debt Charges Assistance. As part of the revised revenue assistance arrangements to apply over the five years 1970-71 to 1974-75 the Australian Government is providing the States with grants to finance increasing portions of the interest and sinking fund charges on certain State debt amounting to \$1,000 million. The grants, which are authorised by the *States Grants (Debt Charges Assistance) Act 1970* totalled \$11,504,000 in 1970-71 and will increase by that sum each subsequent year. Over the five years 1970-71 to 1974-75, the total assistance provided will amount to \$172,560,000.

Advances to the States

The following tables show figures of advances to the States and repayments of advances. More detailed figures appear in *Public Authority Finance: Authorities of the Australian Government*.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: NET ADVANCES TO THE STATES 1972-73 (\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Defence	3,347	1,847	259	31	125	-2	5,608
Housing and community amenities	-2,354	-3,704	-1,081	-1,554	-1,105	-327	-10,125
Economic services—							
Soil and water resources management	533	524	693	-1,412	-1,064	-881	-1,606
Forest resources management	3,237	1,542	2,160	400	1,020	1,101	9,459
Assistance to agricultural and pastoral industries	11,004	11,072	3,005	6,398	6,202	1,660	39,341
Electricity, gas, water supply . . . . .	..	..	14,000	..	..	..	14,000
Rail transport	554	-96	-1,501	11	-685	608	-1,109
Sea transport	-273	..	-76	..	-151	518	18
Other . . . . .	..	..	-570	-1,875	..	..	-2,445
<i>Total economic services</i>	<i>15,055</i>	<i>13,042</i>	<i>17,711</i>	<i>3,522</i>	<i>5,322</i>	<i>3,006</i>	<i>57,658</i>
Other purposes—							
State works programs	189,210	154,650	75,935	83,389	54,774	43,307	601,265
Special revenue assistance	15,000	..	..	..	..	..	15,000
Natural disaster relief	-2,179	-725	-2,025	-69	..	-323	-5,321
<i>Total other purposes</i>	<i>202,031</i>	<i>153,925</i>	<i>73,910</i>	<i>83,320</i>	<i>54,774</i>	<i>42,984</i>	<i>610,944</i>
Total net advances	218,079	165,110	90,799	85,319	59,116	45,661	664,084

Minus sign (-) denotes excess of repayments.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: ADVANCES TO THE STATES
(S'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
GROSS					
Defence	6,899	9,461	9,227	7,033	6,163
Housing and community amenities	126,000	132,289	141,819	12	6,610
Economic services—					
Assistance to agricultural and pastoral industries	..	..	10,708	33,996	41,477
Other	36,439	31,474	20,204	14,542	33,162
Other purposes—					
State works programs(a)	570,638	625,770	481,450	672,900	733,461
Other	10,434	15,120	4,829	17,850	15,000
Total gross advances	750,410	814,114	668,237	746,333	835,873
REPAYMENTS					
Defence	367	416	466	512	555
Housing and community amenities	13,046	14,151	15,182	16,131	16,735
Economic services—					
Assistance to agricultural and pastoral industries	136	115	1,944	2,032	2,136
Other	19,945	19,647	9,668	12,941	14,845
Other purposes—					
State works programs	87,107	107,895	115,067	123,280	132,196
Other	2,405	3,199	4,929	4,869	5,321
Total repayments	123,006	145,423	147,256	159,765	171,788
NET					
Defence	6,532	9,045	8,761	6,521	5,608
Housing and community amenities	112,954	118,138	126,637	-16,119	-10,125
Economic services—					
Assistance to agricultural and pastoral industries	-136	-115	8,764	31,964	39,341
Other	16,494	11,827	10,536	1,601	18,317
Other purposes—					
State works programs	483,531	517,875	366,383	549,620	601,265
Other	8,029	11,921	-100	12,981	9,679
Total net advances	627,404	668,691	520,981	586,568	664,084

(a) From 1971-72 funds for housing are provided under the State loan works program.
Minus sign (-) denotes excess of repayments.

Details of some of the more important State projects for which the Australian Government is providing financial assistance by way of advances are set out below.

Development of resources and assistance to industry

Water resources projects

Blowering Reservoir, New South Wales. The Blowering Reservoir was constructed at the expense of the State of New South Wales mainly by the Snowy Mountains Hydro-electric Authority, and the Australian Government has financed half the cost in the form of repayable interest-bearing loans to that State.

Under the *Western Australia (South-west Region Water Supplies) Agreement Act 1965-1971*, the Commonwealth is providing financial assistance of up to \$12,000,000 by way of interest-bearing loans to Western Australia to accelerate works undertaken by the State to extend the comprehensive water supply scheme in the south-west portion of the State.

Chowilla and Dartmouth Reservoirs. Under the River Murray Waters Agreement the Commonwealth provided assistance in the form of interest-bearing loans amounting to \$1,500,000 to meet the capital costs of the Chowilla Reservoir. Because of significant increases in the estimated cost of the project, it was decided in August 1967 to suspend work on it. Further investigations then followed, including a re-assessment of the likely yield from both Chowilla and alternative storages on the Upper Murray and Mitta Mitta Rivers. Following this re-assessment, the River Murray Commission in February 1969 agreed that a 4 million megalitres storage at Dartmouth on the Mitta Mitta River provided the greatest overall benefits in terms of cost and yield and should be the next development of the resources of the River Murray. The estimated cost of the Dartmouth Dam is \$64 million, and the Australian Government is making advances to the three States concerned (New South Wales, Victoria and South Australia) amounting to fifty per cent of each of their one-quarter share of the construction costs. The Australian Government itself will make its own quarter contribution of the cost of the project. Payments to the three States amounted to \$2 million in 1972-73. (Further information can be found in Chapter 23, Water Resources).

Rural industries development projects

Brigalow lands. Under the Brigalow Lands Agreement Acts, Australian Government advances to the State of Queensland for specified works associated with the production of beef cattle and other primary products in the Fitzroy River Basin and the supply of beef for export were fixed at an overall limit of \$23 million. Repayments over a twenty-year period commenced in 1968 in respect of advances made prior to 1 July 1967 and in 1971 in respect of advances made after 1 July 1967.

Softwood forestry. The *Softwood Forestry Agreements Act 1967* authorised the Australian Government to provide assistance during the five years ending 30 June 1971 for increased planting of softwood forests. Total assistance of the order of \$17.7 million is in the form of interest-bearing loans repayable over twenty-five years.

Transport and communications

Railway projects. The Australian Government is continuing to make advances to South Australia and Western Australia to finance 30 per cent of the cost associated with railway standardisation in those States. In 1971-72, \$2.5 million was made available to Tasmania to finance railway extensions and up-grading in that State.

Natural gas pipeline, South Australia. Under the *Natural Gas Pipeline (South Australia) Agreement Act 1967* the Australian Government is providing a maximum of \$15 million by way of interest-bearing loans to help finance the construction of a pipeline to transport gas from natural gas fields at Gidgealpa and Moomba.

Power, fuel and light

The *Tasmania Agreement (Hydro-Electric Power Development) Act 1968* provided for interest-bearing loans with an overall limit of \$47 million to Tasmania for the financing of a five-year programme of accelerated hydro-electric development based on the commencement of development of the Gordon River area in the south west of the State.

Main components of receipts

The main components of the receipts of Australian Government authorities are taxation, income of public enterprises and other factor income transfers, and borrowing and financing transactions. Taxation constitutes by far the major source of receipts. Borrowing is now of minor significance so far as Federal authorities are concerned, although, as may be seen in later tables, it has become an increasingly significant source of funds for the States. The realisation of the increasing commitment of State revenues to the servicing of a rapidly growing debt burden led to the arrangement agreed to at the 1970 Premiers' Conference whereby the Australian Government now makes interest-free capital grants to the States in lieu of moneys previously obtained by the States from borrowings (*see* page 580.)

In what follows, an account is given of the system of Australian Government taxation, and some details are given of the current operations of Federal public enterprises. Borrowing and other financing activities of Australian Government authorities are dealt with for convenience in a later section relating to the debt of all public authorities.

Australian Government taxation—summary

The following tables show Australian Government taxation receipts classified by type of tax for the past five years, and the proportion of each type to total collections.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: TAXATION BY TYPE OF TAX
(**\$'000**)

<i>Type of tax</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Taxes—					
Income taxes—					
Individuals	2,377,407	2,854,857	3,174,983	3,764,686	4,084,492
Companies(a)	998,021	1,140,922	1,379,255	1,460,806	1,544,071
Dividend (withholding)	28,303	38,003	35,956	42,002	51,197
Interest (withholding)	4,456	8,019	12,318	15,650	21,406
<i>Total income taxes</i>	<i>3,408,187</i>	<i>4,041,801</i>	<i>4,602,512</i>	<i>5,283,144</i>	<i>5,701,166</i>
Estate duty	60,726	71,332	70,101	67,258	66,408
Gift duty	9,376	8,553	7,795	8,530	6,941
Rates on land	1,069	1,296	2,066	5,312	6,180
Customs duties	346,264	413,559	465,989	468,732	513,381
Excise duties	902,307	939,283	1,053,460	1,212,925	1,268,117
Sales tax	494,090	568,668	632,537	680,772	764,868
Primary production taxes	33,674	33,133	27,300	28,836	35,194
Broadcasting listeners' and television viewers' licences	45,125	48,389	49,563	61,785	67,050
Broadcast station licences	310	345	341	474	491
Television station licences	1,392	1,491	1,647	1,967	2,024
Stevedoring industry charge	14,402	13,726	13,131	15,987	16,979
Payroll tax	205,568	230,469	247,677	91,070	6,338
Other taxes	674	2,317	2,993	3,026	4,098
<i>Total taxes</i>	<i>5,523,164</i>	<i>6,374,362</i>	<i>7,177,112</i>	<i>7,929,818</i>	<i>8,459,235</i>
Fees from regulatory services	3,095	3,315	4,340	5,352	6,790
Fines	1,530	1,655	1,715	1,915	2,232
Other current transfers n.e.c.	167	177	190	385	1,126
Total taxation	5,527,956	6,379,509	7,183,357	7,937,470	8,469,383
<i>of which—</i>					
Taxation levied in the Territories only	3,589	5,597	7,664	11,547	14,156

(a) Excludes income tax paid by public enterprises: 1968-69, \$8.5m; 1969-70, \$10.4m; 1970-71, \$16.1m; 1971-72, \$16.7m; 1972-73, \$17.2m.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: PROPORTION OF EACH TYPE OF TAXATION TO TOTAL TAXATION
(**Per cent**)

<i>Type of tax</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Income tax	61.7	63.4	64.1	66.6	67.3
Estate duty	1.1	1.1	1.0	0.8	0.8
Gift duty	0.2	0.2	0.1	0.1	0.1
Rates on land . . . . .	..	..	..	0.1	0.1
Customs duties	6.3	6.5	6.5	5.9	6.1
Excise duties	16.3	14.7	14.7	15.3	15.0
Sales tax	8.9	8.9	8.8	8.6	9.0
Primary production taxes	0.6	0.5	0.4	0.4	0.4
Broadcasting listeners' and television viewers' licences	0.8	0.8	0.7	0.8	0.8
Stevedoring industry charge	0.3	0.2	0.2	0.2	0.2
Pay-roll tax	3.7	3.6	3.4	1.1	0.1
Other taxes, fees, fines, etc.	0.1	0.1	0.1	0.1	0.1
Total taxation	100.0	100.0	100.0	100.0	100.0

Taxes on income

A description of the development of income taxes in Australia appeared in Year Book No. 35, page 926. Since July 1942 the Australian Government, under the uniform tax arrangement, has been the only authority imposing taxes on income.

The laws dealing with the assessment and imposition of Income tax at 30 June 1974 were—*Income Tax Assessment Act 1936–1973*, *Income Tax Act 1973*, *Income Tax (Non-Resident Dividends and Interest) Act 1967–1973*, *Income, Tax (Drought Bonds) Act 1969*, and the *Income Tax Regulations*. The second-mentioned Act is an annual measure, and its primary purpose is to declare the rates of tax payable for the financial year.

Both individuals and companies are liable for income tax. Private companies are subject to tax on undistributed income in addition to the primary income tax levied on all companies.

The operation of the *Income Tax Assessment Act 1936–1973* is affected by the following Acts:

- (a) *Taxation Administration Act 1953–1968*, which provides for the administration of certain Acts relating to taxation;
- (b) *Income Tax (International Agreements) Act 1953–1973* which gives the force of law to comprehensive double taxation agreements between the Australian Government and the Governments of the United Kingdom, the United States of America, Canada, New Zealand, Singapore and Japan. This Act also gives the force of law to an agreement with the Government of France for the avoidance of double taxation on income derived from international air transport. An agreement with Italy dealing with airline profits has been signed, but has not yet been given the force of law. A comprehensive agreement with the Federal Republic of Germany was signed in November 1972, but is not yet law.
- (c) *Diplomatic Privileges and Immunities Act 1967–1972* which provides for the exemption from income tax of certain income of diplomatic representatives, their staff and families.
- (d) *International Organisations (Privileges and Immunities) Act 1963–1966*, and Regulations made under that Act, which provide for exemption from income tax of certain incomes of international organisations and their officials;
- (e) *Loan (Drought Bonds) Act 1969* which authorises the issue of drought bonds and empowers the Commissioner of Taxation to declare when drought bonds shall become redeemable.

Individuals with incomes in excess of \$1,040, non-profit companies with total incomes in excess of \$416, and all other companies, partnerships and trusts deriving income are required to lodge returns of income each year.

Where applicable, income tax payable is assessed and assessment notices showing the amounts payable are issued during the year following the year of income. For individuals the approximate amount payable, however, has already been collected during the income year (from employees by deductions from salary or wages and from non-employees by a provisional tax). The amount shown on the assessment notice is therefore adjusted against the amount already paid and any difference either collected or refunded.

Taxes on income—individuals

Pay-as-you-earn-system

Salary and wage earners are subject to tax instalment deductions by employers according to a prescribed scale which shows the amount to be deducted according to income and number of dependants. Under the group employer scheme of deduction (covering most employers of more than ten persons), the amount deducted is required to be regularly remitted to the Australian Government Taxation Office.

Not later than 14 July each year employers are required to supply each employee with a group certificate showing amount earned and deductions made during the year ended 30 June.

Under the stamp scheme used by employers other than group employers, a stamp deduction sheet in two parts is used. Each four weeks the employer purchases stamps (also in two parts) for the amount of deductions made each pay day and sticks one part on each half of the sheet. At the end of the year the employer gives the employee one half of the sheet and sends the other half to the Taxation Office. The employee's half is then used in the same way as a group certificate.

Individuals with taxable income of \$400 or more from other than salary or wages may be required to pay provisional tax in respect of that income. Collection of provisional tax for the current year is made at the same time as collection and assessment for the previous year are adjusted. The notice of assessment shows an amount of provisional tax for the current year. The provisional amount is intended as an approximation to the tax which will be assessed after the return of income for the current year has been lodged. It is ascertained by assuming that the income of the current year will

be the same as that for the previous year and applying to that income the rates for the current year. The assessment notice shows the provisional tax paid in the previous year as a credit against the tax assessed on the basis of the return for that year.

Assessable income

Assessable income includes all income, other than exempt income, derived directly or indirectly from sources in Australia and, in the case of resident taxpayers, includes income from sources outside Australia.

Income includes certain other receipts declared by the Assessment Act to be assessable income. Receipts such as gifts (other than gratuities received by an employee from his employer in the course of his employment), legacies, profits from the sale of property (not acquired for the purpose of profit making by sale), lottery wins, and most capital gains are not regarded as income and are not assessable.

Certain types of income are exempt from tax, including (i) war pensions (ii) invalid pensions and child endowment and certain other payments under the *Social Services Act 1947-1973* and the *Tuberculosis Act 1948*, (iii) income from gold-mining and some other mining operations (iv) twenty per cent of certain mining profits, (v) income received from a scholarship, bursary or other educational allowance (vi) income of certain non-profit institutions and mutual income of some other organisations, (vii) income of specified superannuation funds, (viii) pay, allowances and bounties for part-time duty, and gratuity payable on a call out for continuous full-time service of members of the Defence Force Emergency Reserves, and (ix) pay allowances of members of the Defence Forces while allotted for duty in special areas.

Expenditure incurred in producing assessable income or in carrying on a business is an allowable deduction, except to the extent that is of a capital, private, or domestic nature, or is incurred in producing exempt income. Subscriptions paid to certain business associations and trade unions are also allowable deductions.

Special deductions for both resident and non-resident taxpayers include such items as trading losses incurred in previous years, bad debts, depreciation, annual rates and land taxes paid, gifts to various institutions, certain expenditure on scientific research, and, subject to certain conditions, one-third of amounts paid as calls to afforestation companies operating in Australia.

Special deductions may be allowed for certain expenditure of a capital nature incurred in mining or prospecting operations conducted for the purpose of earning assessable income and in the provision of certain transport facilities necessary for and directly related to those operations. In the case of primary producers certain developmental expenditure of a capital nature which was previously deductible in full in the year in which it was incurred is now allowable as a deduction by way of equal annual instalments over 10 years. For expenditures that give rise to depreciable structures, deduction is available by way of ordinary depreciation. In addition, deductions may be allowed to primary producers for the cost of purchasing drought bonds. Subject to a maximum permissible tax saving, a special rebate is allowed for certain expenditure on export market development incurred on or before 30 June 1974 but excluding expenditure in the development of meat export markets if incurred after 10 September 1973 unless incurred under a contract entered into on or before that date. The rebate is in addition to any normal deduction for the expenditure allowed as a business expense.

Residents of Zone A and Zone B, prescribed isolated areas subject to uncongenial climatic conditions and high costs of living are entitled to a zone allowance deduction. Members of the defence forces serving in certain overseas localities, are entitled to a deduction of the same amount as residents of Zone A.

Concessional deductions

Concessional allowances to residents for dependants, medical and dental expenses, life insurance, superannuation contributions, etc. are made as a deduction from income. The maximum deduction allowed for the income year 1973-74 for each dependant or for a housekeeper is shown below.

<i>Dependant, etc. (resident)</i>	<i>Maximum deduction(a)</i>
	\$
Spouse, daughter-housekeeper(b); housekeeper(c); parent or parent-in-law	364
One child under 16 years of age; invalid relative(d); student child 16 to under 25 years of age	260
Other children under 16 years of age	208

(a) If the dependant is maintained for part only of the year, a partial deduction is allowed. (b) Of a widower or widow. (c) Caring for a spouse in receipt of an invalid pension, or caring for children under 16 years of age of a widower or widow. (d) Child, step-child, brother or sister over 16 years of age.

If a dependant derives separate net income, which includes age or invalid pension but not child endowment, the deduction is reduced by the amount, by which the separate net income exceeds \$130. Scholarships are excluded except insofar as they relate to maintenance.

Medical expenses (less amounts recouped from hospital and medical funds) paid by a resident taxpayer in respect of himself, his spouse, children under 21 years of age and dependants for whom concessional deductions are allowed, are allowed as a concessional deduction. These expenses include payments to a legally qualified medical practitioner, dentist, nurse or chemist, or hospital, in respect of an illness or operation, therapeutic treatment or eye tests, expenditure on medical or surgical appliances, artificial limbs or eyes, hearing aids and spectacles, payment of an attendant of a blind or bed-ridden person or for the maintenance of a trained dog used by a blind person.

Other concessional deductions allowed to resident taxpayers include: (i) payments of life insurance premiums and contributions to superannuation funds and friendly societies, (maximum \$1,200), (ii) payments to medical or hospital funds, (iii) funeral expenses (maximum \$100 for each dependant), (iv) expenditure incurred for the full-time education of children less than twenty-five years of age (maximum \$400 for each child), (v) subscriptions to trade, business or professional associations or unions (maximum \$42 to each), and (vi) self-education expenses paid by the taxpayer for the purpose of gaining qualifications for use in carrying on a profession or business, or in the course of employment.

Effective exemption from tax

For the income years from 1963-64 to 1971-72 inclusive, the income of a taxpayer without dependants was exempt from income tax if did not exceed \$416. For 1972-73 and 1973-74 the income of a taxpayer without dependants was exempt from income tax if did not exceed \$1,040. The effect of deductions for dependants was to exempt resident taxpayers up to the incomes shown in the samples hereunder.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM INCOME TAX
(**\$**)

<i>Income years ended June—</i>	<i>Taxpayer with—</i>		<i>Wife and—</i>			
	<i>No dependants</i>	<i>Wife only</i>	<i>one child</i>	<i>two children</i>	<i>three children</i>	<i>four children</i>
1964 to 1967	416	702	884	1,014	1,144	1,274
1968 to 1972	416	728	936	1,092	1,248	1,404
1973	1,040	1,404	1,664	1,872	2,080	2,288

For 1973-74 and subsequent income years certain pensions which had previously been exempt from income tax are subject to tax. These include age pensions and other social security pensions, allowances and benefits, repatriation pensions (other than war pensions), the tuberculosis allowance, and similar pensions paid to people of age pension-age, and wives pensions paid to women under age pension-age who are married to men of age pension-age. Other pensions that had previously been exempt from tax continue to be exempt.

For the 1973-74 income year a special age rebate had the effect of exempting from tax those taxpayers whose taxable income (including pension) did not exceed \$1,921. For income between \$1,922 and \$3,224 the rebate was \$156 and for incomes between \$3,225 and \$3,847 the rebate was \$156 less ¼ of the amount by which taxable income was more than \$3,224.

Rates of income tax on individuals

The table on page 590 shows the rates of income tax for income years 1954-55 to 1973-74 as set out in the First Schedule to the Income Tax Act.

Assessable income represents total actual income minus exempt income. Taxable income is the amount remaining after all allowable deductions have been made from assessable income.

Where the taxable income of a person does not exceed \$1,120 the amount of income tax payable is limited to two-thirds of the excess of the taxable income over \$1,040. The tax so ascertained is reduced by any rebate or credit to which the taxpayer is entitled.

The only cases in which incomes below \$1,040 attract tax are those for which special rates are payable in accordance with certain sections of the Income Tax Assessment Act.

For *primary producers* the rate of income tax for the current year is, in general, determined by the average of the taxable incomes for the five years up to and including the current year. In 1951 a taxpayer was given the right to elect not to have the averaging provisions applied but up to 1965-66 income year the election, if made under then existing legislation, was irrevocable. The *Income Tax Assessment Act 1966* amended this and a primary producer who, prior to the 1966-67 income year, elected to withdraw from the averaging system, was able to review that decision, being permitted to return to the averaging system provided that the necessary election was made in respect of any one of the income years 1966-67 to 1969-70. In the year of re-entry the taxpayer was treated for averaging purposes as though he had never withdrawn from the system. However, with existing legislation, he does not have the right to withdraw again. The application of the averaging provisions is limited to that part of the taxable income which does not exceed \$16,000. When the taxable income does exceed \$16,000, the balance is taxed at ordinary rates applicable to that part. When the taxable income is less than \$16,000, the rate of tax for averaging purposes is limited to the rate on a taxable income of \$16,000.

The taxable income, including abnormal receipts, of *actors, artists, inventors, etc.* is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Interest derived from bonds, etc. issued between 1 January 1940 and 31 October 1968 by the Australian Government, or on certain State semi-government loans issued free of State income tax, is subject to a rebate of income tax of 10 cents for each \$1 of interest received. The rebate does not apply to interest received from bonds, etc., issued on or after 1 November 1968.

FEDERAL INCOME TAX—INDIVIDUALS: GENERAL RATES, 1954-55 TO 1973-74
INCOME YEARS

Total taxable income		1954-55 to 1964-65(a)		1965-66 to 1969-70(b)		1970-71 to 1971-72(c)		1972-73 and 1973-74	
Column 1	Column 2	Tax on amount in col. 1	Tax on each further \$ of income	Tax on amount in col. 1	Tax on each further \$ of income	Tax on amount in col. 1	Tax on each further \$ of income	Tax on amount in col. 1	Tax on each further \$ of income
More than—	Not more than—	\$	cents	\$	cents	\$	cents	\$	cents
	\$								
	200	Nil	0.42	Nil	0.40	Nil	0.30	Nil	0.2
200	300	0.83	1.25	0.80	1.20	0.60	1.20	0.40	0.8
300	400	2.08	2.92	2.00	2.90	1.80	2.70	1.20	2.4
400	500	5.00	4.58	4.90	4.50	4.50	4.10	3.60	3.8
500	600	9.58	6.25	9.40	6.10	8.60	5.50	7.40	4.9
600	800	15.83	8.33	15.50	8.20	14.10	7.40	12.30	6.5
800	1,000	32.50	10.83	31.90	10.80	28.90	9.70	25.30	8.2
1,000	1,200	54.17	12.50	53.50	12.50	48.30	11.30	41.70	9.8
1,200	1,400	79.17	14.17	78.50	14.20	70.90	12.80	61.30	11.3
1,400	1,600	107.50	15.83	106.90	15.90	96.50	14.30	83.90	12.7
1,600	1,800	139.17	17.50	138.70	17.60	125.10	15.80	109.30	14.1
1,800	2,000	174.17	19.17	173.90	19.30	156.70	17.30	137.50	15.4
2,000	2,400	212.50	21.67	212.50	21.60	191.30	19.50	168.30	17.2
2,400	2,800	299.17	24.58	298.90	24.60	269.30	22.10	237.10	19.6
2,800	3,200	397.50	27.08	397.30	27.10	357.70	24.40	315.50	22.0
3,200	3,600	505.83	29.58	505.70	29.60	455.30	26.70	403.50	24.4
3,600	4,000	624.17	32.08	624.10	32.10	562.10	28.80	501.10	26.8
4,000	4,800	752.50	35.42	752.50	35.40	677.30	31.90	608.30	30.3
4,800	5,600	1,035.83	38.33	1,035.70	38.30	932.50	34.50	850.70	33.3
5,600	6,400	1,342.50	41.25	1,342.10	41.20	1,208.50	37.00	1,117.10	35.7
6,400	7,200	1,672.50	43.75	1,671.70	43.80	1,504.50	39.40	1,402.70	37.9
7,200	8,000	2,022.50	46.25	2,022.10	46.30	1,819.70	41.70	1,705.90	39.9
8,000	8,800	2,392.50	48.75	2,392.50	48.70	2,153.30	43.90	2,025.10	41.8
8,800	10,000	2,782.50	51.67	2,782.10	51.70	2,504.50	46.50	2,359.50	44.1
10,000	12,000	3,402.50	55.00	3,402.50	55.00	3,062.50	50.60	2,888.70	48.2
12,000	16,000	4,502.50	57.92	4,502.50	57.90	4,074.50	56.40	3,852.70	54.6
16,000	20,000	6,819.17	60.42	6,818.50	60.40	6,330.50	62.40	6,036.70	60.3
20,000	32,000	9,235.83	63.33	9,234.50	63.30			8,448.70	64.0
32,000	40,000					8,826.50	66.70		
40,000	upwards	16,835.83	66.67	16,830.50	66.70			21,248.70	66.7

(a) For the 1959-60 and 1961-62 to 1963-64 income years a rebate of 5 per cent was allowable on the tax calculated from this schedule. (b) Additional tax equal to 2.5 per cent of the tax calculated from this schedule was also payable. (c) Additional tax equal to 2.5 per cent and 4.375 per cent of the tax calculated from this schedule was also payable for 1970-71 and 1971-72 respectively.

Income tax payable on specified incomes

The following table shows, for the income years 1964-65 to 1973-74, the actual income tax payable by taxpayers with various incomes and numbers of dependants without regard to any rebate or refund which may apply.

FEDERAL INCOME TAX PAYABLE ON SPECIFIED INDIVIDUAL INCOMES
1964-65 TO 1973-74 INCOME YEARS
(\$)

<i>Income(a)</i>	1964-65	1965-66 and 1966-67	1967-68 to 1969-70	1970-71	1971-72	1972-73 and 1973-74
TAXPAYER WITH NO DEPENDANTS						
\$						
1,000	54.20	54.83	54.83	49.50	50.41	..
3,000	451.70	462.78	462.78	416.66	424.28	359.50
5,000	1,112.50	1,140.10	1,140.10	1,026.53	1,045.32	917.30
7,000	1,935.00	1,982.86	1,982.86	1,784.42	1,817.06	1,630.10
10,000	3,402.50	3,487.56	3,487.56	3,139.06	3,196.48	2,888.70
15,000	6,240.00	6,395.48	6,395.48	5,910.66	6,018.78	5,490.70
20,000	9,235.80	9,465.36	9,465.36	9,047.16	9,212.66	8,448.70
TAXPAYER WITH DEPENDENT WIFE						
1,000	25.30	25.45	23.27	21.12	21.51	..
3,000	376.40	385.53	378.97	341.26	347.51	283.35
5,000	1,005.38	1,030.37	1,020.95	919.18	936.00	801.00
7,000	1,809.88	1,854.45	1,842.77	1,658.41	1,688.75	1,492.14
10,000	3,254.70	3,335.99	3,322.21	2,990.35	3,045.06	2,728.17
15,000	6,074.36	6,225.74	6,210.32	5,730.29	5,835.11	5,291.95
20,000	9,063.00	9,288.29	9,272.20	8,847.60	9,009.45	8,229.20
TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD						
1,000	11.60	11.63	8.71	7.97	8.12	..
3,000	331.60	339.65	326.54	294.15	299.54	232.97
5,000	940.91	964.33	945.48	851.18	866.75	722.22
7,000	1,730.25	1,772.74	1,749.40	1,574.42	1,603.22	1,394.13
10,000	3,160.70	3,239.55	3,212.00	2,891.21	2,944.11	2,613.51
15,000	5,968.95	6,117.73	6,086.88	5,610.05	5,712.67	5,149.99
20,000	8,953.10	9,175.61	9,143.43	8,714.57	8,873.98	8,072.42
TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN						
1,000 . . . . .	..	..	..	..	..	..
3,000	299.70	306.87	289.54	260.84	265.61	197.19
5,000	894.88	917.16	888.86	800.16	814.80	659.20
7,000	1,673.38	1,714.38	1,681.38	1,513.28	1,540.97	1,319.87
10,000	3,093.50	3,170.66	3,129.32	2,816.86	2,868.39	2,521.78
15,000	5,893.66	6,040.58	5,994.29	5,519.86	5,620.83	5,036.42
20,000	8,874.50	9,095.13	9,046.84	8,614.78	8,772.37	7,947.00

(a) Income remaining after allowing all deductions other than deductions for dependants.

Income tax assessments—Individuals

The following table shows for the 1971-72 income year the number of taxpayers, income, and net income tax assessed for individuals.

**FEDERAL INCOME TAX ASSESSMENTS(a): TAXABLE INDIVIDUALS BY GRADE
OF NET INCOME AND BY OFFICE OF ASSESSMENT**
(Income derived in the year 1971-72)

Grade of net income(b) and office of assessment	Taxpayers			Net income(b)	Total taxable income(c)	Net income tax assessed
	Males	Females	Total			
\$	No.	No.	No.	\$'000	\$'000	\$'000
1- 599	37,080	78,319	115,399	59,295	57,238	1,098
600- 799	49,747	99,638	149,385	104,447	97,417	2,881
800- 999	48,462	98,608	147,070	132,161	121,510	4,974
1,000- 1,199	49,008	101,015	150,023	164,728	149,077	7,702
1,200- 1,399	52,923	103,775	156,698	203,844	181,917	11,072
1,400- 1,599	60,369	108,916	169,285	253,970	225,897	15,415
1,600- 1,799	62,921	111,442	174,363	296,404	262,986	19,975
1,800- 1,999	67,469	115,360	182,829	347,358	307,749	26,023
2,000- 2,199	72,288	124,391	196,679	413,016	365,962	34,039
2,200- 2,399	75,791	125,887	201,678	463,948	410,532	41,762
2,400- 2,599	81,172	126,061	207,233	518,051	457,629	50,270
2,600- 2,799	90,614	118,253	208,867	563,600	494,853	57,831
2,800- 2,999	101,440	106,631	208,071	603,371	526,742	64,885
3,000- 3,999	707,222	351,147	1,058,369	3,696,893	3,125,252	436,928
4,000- 5,999	1,272,712	201,747	1,474,459	7,162,957	5,801,036	1,022,314
6,000- 7,999	476,513	55,288	531,801	3,626,197	2,886,141	635,253
8,000- 9,999	165,086	19,188	184,274	1,628,316	1,297,515	334,734
10,000-19,999	136,427	17,418	153,845	1,968,782	1,618,850	532,945
20,000-29,999	13,510	1,727	15,237	359,967	315,245	146,456
30,000 and over	5,181	685	5,866	260,010	237,874	137,168
New South Wales and Australian Capital Territory	1,343,105	780,266	2,123,371	8,796,490	7,347,684	1,426,817
Victoria	1,012,329	607,655	1,619,984	6,532,346	5,421,951	1,036,380
Queensland	501,804	258,756	760,560	2,947,210	2,421,255	443,243
South Australia	343,393	192,706	536,099	1,987,000	1,640,363	288,080
Western Australia	298,015	162,599	460,614	1,816,669	1,510,234	281,359
Tasmania	108,165	54,860	163,025	615,567	500,856	88,239
Northern Territory	19,124	8,654	27,778	132,032	99,081	19,607
Total	3,625,935	2,065,496	5,691,431	22,827,315	18,941,425	3,583,725

(a) Assessments in respect of 1971-72 incomes issued to 30 September 1973. Assessments issued after that date are not included. (b) Net income is 'Total assessable income less total deductions for expenses incurred in gaining assessable income'. (c) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

Details of the number of individual taxpayers and net income tax assessed by grades of income for the income years 1968-69 to 1971-72 are shown in the following table.

FEDERAL INCOME TAX ASSESSMENTS: TAXABLE INDIVIDUALS, BY GRADE OF INCOME(a) (INCOME YEARS 1968-69 TO 1971-72)

Grade of income(a)	1968-69		1969-70		1970-71		1971-72	
	Tax-payers	Net income tax assessed	Tax-payers	Net income tax assessed	Tax-payers	Net income tax assessed	Tax-payers	Net income tax assessed
\$ \$	No.	\$'000	No.	\$'000	No.	\$'000	No.	\$'000
1- 599	135,021	1,422	131,879	1,341	125,849	1,186	115,399	1,098
600- 799	170,364	3,520	171,709	3,546	165,191	3,175	149,385	2,881
800- 999	172,733	6,311	167,120	6,132	162,961	5,524	147,070	4,974
1,000- 1,199	195,344	10,737	184,271	10,152	170,432	8,629	150,023	7,702
1,200- 1,399	210,000	16,039	195,401	14,966	179,330	12,540	156,698	11,072
1,400- 1,599	228,041	23,034	209,823	20,841	190,750	17,269	169,285	15,415
1,600- 1,799	249,694	32,141	228,329	28,849	203,195	23,206	174,363	19,975
1,800- 1,999	255,753	40,486	237,698	37,139	217,508	30,922	182,829	26,023
2,000- 2,199	254,830	47,369	246,669	46,192	229,209	39,382	196,679	34,039
2,200- 2,399	252,529	53,986	243,994	53,614	227,274	46,208	201,678	41,762
2,400- 2,599	251,985	60,644	243,829	61,193	226,008	53,309	207,233	50,270
2,600- 2,799	253,345	67,750	244,652	68,720	230,011	61,509	208,867	57,831
2,800- 2,999	249,760	74,460	239,232	74,007	229,094	68,171	208,071	64,885
3,000- 3,999	1,071,163	422,304	1,100,359	450,391	1,089,160	424,318	1,058,369	436,928
4,000- 5,999	877,478	592,676	1,060,822	737,150	1,284,172	847,729	1,474,459	1,022,314
6,000- 7,999	215,538	265,415	275,544	344,938	385,638	448,092	531,801	635,253
8,000- 9,999	72,276	140,707	89,392	175,662	127,980	229,740	184,274	334,734
10,000-19,999	75,702	290,566	86,974	337,285	110,083	387,829	153,845	532,945
20,000-29,999	8,875	85,763	10,462	100,957	12,212	117,004	15,237	146,456
30,000 and over	3,611	82,652	4,342	105,895	4,664	108,878	5,866	137,168
Total	5,204,042	2,317,982	5,372,501	2,678,970	5,570,721	2,934,618	5,691,431	3,583,725

(a) Actual income for 1968-69 and 1969-70; net income after 1970-71. Actual income is 'gross income including exempt income less expenditure incurred in gaining that income'. Net income is 'Total assessable income less total deductions for expenses incurred in gaining that income'.

Partnerships and trusts

Income tax returns are required to be lodged on behalf of partnerships and trusts which, as partnerships and trusts, are not required to pay tax except in certain specified circumstances when they may be assessed as individuals. In general, the net income remaining, after allowing all deductions including expenditure incurred in gaining the income, is distributed to the partners or beneficiaries concerned and is assessable for tax in the respective individual returns.

The following table shows for the 1971-72 income year numbers, total business income and net income of partnerships and trusts. Greater detail is published in the annual bulletin *Commonwealth Taxation Assessments*.

PARTNERSHIPS AND TRUSTS—INCOME YEAR 1971-72

Item	Partnerships	Trusts	Total
Number	412,573	113,422	525,995
Total business income . . . \$'000	6,825,126	91,688	6,916,814
Net income \$'000	2,337,961	236,717	2,574,679

Taxes on income—companies

For taxation purposes companies are divided into two main groups—private and public. Broadly, a private company is defined as a company in which all the issued shares are held by not more than twenty persons, or which is capable of being controlled by not more than seven persons, and which is not a company in which the public is substantially interested, or is a subsidiary of a public company. All other companies are regarded as public companies. Both private and public companies pay primary tax assessed on a taxable income ascertained on the same principles as for individuals.

Dividends received are assessable income; resident companies, however, receive a rebate at the average rate on the amount of dividends included in the taxable income, while this rebate is not allowed to non-resident companies.

A private company is liable to pay additional tax upon the amount, if any, by which the dividends paid by the company within a prescribed period fall short of sufficient distribution as defined.

Rates of tax. The rates of primary income tax for all companies and additional tax for private companies applicable to income years 1959–60 to 1972–73 are shown in the following table.

RATES OF INCOME TAX: COMPANIES, 1959-60 TO 1972-73 INCOME YEARS
(Cents per \$)

Income years ended June	Resident private company			Resident public company(a)		Non resident company			
	On taxable income		Additional tax on un- distributed income	On taxable income		On dividends income		On other income	
	Up to \$10,000	On re- mainder		Up to \$10,000	On re- mainder	Up to \$10,000	On re- mainder	Up to \$10,000	On re- mainder
1960 to 1963	25	35	50	35	40	30	40	35	40
1964 to 1967	27.5	37.5	50	37.5	42.5	32.5	42.5	37.5	42.5
1968 and 1969	30	40	50	40	45	35	45	40	45
1970	32.5	42.5	50	42.5	47.5	37.5	47.5	42.5	47.5
1971 and 1972	37.5	42.5	50	47.5	47.5	42.5	47.5	47.5	47.5
1973	45.0	45.0	50	47.5	47.5	47.5	47.5	47.5	47.5

(a) Excludes co-operative, non-profit and life insurance for which the rates of tax (in cents per \$) for 1972–73 income year were:

Type of company	Taxable income	
	Up to \$10,000	On remainder
Co-operative	42.5	47.5
Non-profit—Friendly societies' dispensaries	37.5	37.5
Other	42.5	47.5
Mutual life insurance	47.5	47.5
Other life insurance—Mutual income	47.5	47.5
Other income	47.5	47.5

A non-profit company is not liable to income tax unless the taxable income exceeds \$416. Where the non-profit company is a friendly society dispensary and the taxable income does not exceed \$1,664 the maximum amount payable is one-half of the excess over \$416 less any rebate or credit to which the company is entitled. Where the taxable income of a non-profit company other than a friendly society dispensary does not exceed \$1,830, the tax payable by the company is limited to 55 per cent of the amount by which the taxable income exceeds \$416 less any rebate or credit to which the company is entitled. Other companies are assessed for income tax if the taxable income is \$1 or more.

Details in respect of company income tax assessments for the 1971-72 income year are shown in the following table.

FEDERAL INCOME TAX ASSESSMENTS: RESIDENT AND NON-RESIDENT COMPANIES BY GRADE OF INCOME AND OFFICE OF ASSESSMENT

(Income derived in the year 1971-72)

Grade of taxable income(a) (\$) and office of assessment	Taxable			Non-taxable		
	Companies	Taxable income (a)	Net income tax assessed (b)	Companies	Taxable income (a)(c)	Loss(d)
	No.	\$'000	\$'000	No.	\$'000	\$'000
Loss for year . . . . .	..	..	..	54,268	..	491,901
Nil . . . . .	..	..	..	24,405	..	..
1- 1,999	32,322	20,987	7,577	4,923	3,779	..
2,000- 9,999	38,141	210,905	74,709	5,772	28,906	..
10,000- 19,999	15,852	219,226	79,477	1,745	24,611	..
20,000- 39,999	8,669	241,548	89,442	1,034	28,834	..
40,000- 99,999	5,636	345,753	130,220	565	34,303	..
100,000- 199,999	2,116	294,735	111,247	180	24,495	..
200,000- 399,999	1,142	320,442	118,892	122	33,946	..
400,000- 999,999	813	500,817	177,923	71	42,819	..
1,000,000-1,999,999	308	433,288	150,153	14	21,242	..
2,000,000 and over	296	1,902,227	608,117	13	55,490	..
Total	105,295	4,489,929	1,547,756	93,112	298,424	491,901
New South Wales	45,712	1,692,288	593,809	41,329	123,716	218,715
Victoria	30,128	1,978,873	646,272	21,975	97,726	145,893
Queensland	11,396	312,283	119,995	8,875	16,639	42,403
South Australia	8,283	232,760	87,932	8,443	13,964	30,046
Western Australia	5,715	182,663	71,229	7,619	8,981	41,898
Tasmania	1,854	47,904	16,539	1,812	2,385	7,196
Northern Territory	595	10,914	4,262	493	844	3,259
Australian Capital Territory	1,612	32,244	7,718	2,566	34,169	2,492

(a) Taxable income is the income remaining after deducting from assessable income all allowable deductions.
 (b) Excludes additional tax on the undistributed income of private companies. (c) Net tax assessed is nil because of rebates. (d) Not included in the figures shown for taxable income.

Yield of income taxes

Income taxes collected. The following table shows the net amounts of taxes collected and the proportions of the several components over recent years.

FEDERAL INCOME TAXES COLLECTED: COLLECTION YEARS 1968-69 TO 1972-73

Source of income tax	1968-69	1969-70	1970-71	1971-72	1972-73
NET AMOUNTS COLLECTED (\$'000)					
Individuals—					
Instalments—salaries and wages	1,727,290	2,084,219	2,432,062	2,888,547	3,160,681
Other payments	652,176	773,917	746,075	880,037	928,797
Companies	1,006,543	1,151,364	1,395,389	1,477,482	1,561,287
Withholding tax—Dividend	28,303	38,003	35,956	42,002	51,197
Interest	4,456	8,019	12,318	15,650	21,406
Total	3,418,768	4,055,523	4,621,800	5,303,717	5,723,369
PERCENTAGES					
Individuals—					
Instalments—salaries and wages	50.52	51.39	52.62	54.46	55.22
Other payments	19.08	19.08	16.14	16.59	16.23
Companies	29.44	28.39	30.19	27.86	27.28
Withholding tax—Dividend	0.83	0.94	0.78	0.79	0.89
Interest	0.13	0.20	0.27	0.30	0.37
Total	100.00	100.00	100.00	100.00	100.00

Income tax assessed. The amounts of income tax covered by statistical analyses of assessments for recent years are shown in the following table. The amounts are shown under the year of income of the taxpayer. Tax is usually paid by companies in the year following the year of income. Individuals pay tax in the year of income, but there is usually an adjustment in the following year. Tax assessed after the close of the normal assessing period (fifteen months after the close of the income year for individuals and eighteen months for companies) is not included.

FEDERAL INCOME TAXES ASSESSED: INCOME YEARS 1967-68 TO 1971-72
(\$'000)

Tax	1967-68	1968-69	1969-70	1970-71	1971-72
Individuals—					
Residents	1,985,293	2,316,451	} 2,678,970	2,934,618	3,583,725
Non-residents	1,550	1,531			
Companies—					
Primary tax	1,010,357	1,151,375	1,425,555	1,453,116	1,547,756
Additional tax on undistributed income of private companies	6,648	4,384	3,699	5,141	n.a.
Superannuation Funds	656	677	701	934	1,214
Total	3,004,504	3,474,418	4,108,925	4,393,809	n.a.

Refunds of revenue. Income tax collections, as previously shown, are net amounts after refunds of revenue made in the course of the year. Refunds are of two types—those charged to special appropriations under authority of the Income Tax Assessment Act and those charged to special appropriations under authority of the Audit Act. Income tax instalment refunds, by far the greatest part of income tax refunds, are made when the instalments deducted during the year exceed the tax assessed on incomes for that year. Refunds made from special appropriations under section 37A of the Audit Act include refunds of moneys paid to the revenue in error, refunds of tax overpaid, refunds due to the amendment of assessments, etc. Refunds of income tax to individuals during the collection years 1968-69 to 1972-73 were: 1968-69, \$477,965,000; 1969-70, \$514,065,000; 1970-71, \$594,748,000; 1971-72, \$697,057,000, and 1972-73, \$723,226,000.

Estate duty

Under the *Estate Duty Assessment Act 1914-1973* estate duty is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula: (a) where the whole of the estate passes to the widow, widower, children (including adopted children, step-children and ex-nuptial children) or grandchildren of the deceased person: (i) for qualifying estates of deceased primary producers—\$48,000; (ii) for other estates—\$40,000; decreasing by \$2 for every \$8 by which the value of the estate exceeds \$48,000 or \$40,000 as the case may be; (b) where no part of the estate passes to the relatives mentioned in (a): (i) for qualifying estates of deceased primary producers—\$24,000; (ii) for other estates—\$20,000; decreasing by \$2 for every \$8 by which the value of the estate exceeds \$24,000 or \$20,000 as the case may be; and (c) where part only of the estate passes to the relatives mentioned in (a): an amount calculated proportionately under (a) and (b) above.

As a general rule, the estate of a deceased primary producer would qualify for the higher level of statutory exemption if: (i) the death occurred on or after 25 September 1969; (ii) the deceased person was domiciled in Australia at the time of his death; (iii) during the period of five complete income tax years preceding death, more than one-half of the deceased person's gross income was derived from the carrying on by him of a primary production business in Australia; and (iv) the gross value of rural property in Australia—being land and certain other types of assets used in a primary production business such as livestock and agricultural plant—exceeded the gross value of all other property in the estate. In specified circumstances, dividends and certain other receipts from a family proprietary company in which a deceased person held shares may be treated as income derived from the carrying on by him of a primary production business and the value of the shares may be included, either wholly or in part, in the value of the estate's rural property.

Special exemptions are also allowed in respect of estates of defence personnel who die on active service or within three years of termination of their active service from injuries received or diseases contracted while on active service, and prescribed personal property held in Australia by certain United States personnel who are in Australia solely for purposes connected with projects of the United States Government.

A 'quick succession' rebate of estate duty may be allowable if the deceased was a beneficiary in an estate (upon which duty is payable or has been paid) of a person who pre-deceased him by not more than five years.

A 'rural property' rebate of part of any estate duty attributable to rural property included in the estate of a deceased primary producer may be allowable if the value of the estate (before deducting any statutory exemption) is less than \$250,000 and certain conditions are satisfied. The conditions are the same as those governing entitlements to higher levels of statutory exemptions for estates of deceased primary producers, as outlined in the explanations relating to statutory exemptions. If the value of a qualifying estate does not exceed \$140,000, the rebate is fifty per cent of any duty attributable to rural property in Australia. Rates of rebate gradually reducing from fifty per cent are applicable to estates having net values between \$140,000 and \$250,000.

The rates of duty have remained unchanged since 1941 and increase as the value of the estate for duty increases, as follows: does not exceed \$20,000, 3 per cent; \$20,001 to \$40,000, 3 per cent to 6 per cent; \$40,001 to \$240,000, 6 per cent to 26 per cent; \$240,001 to \$1,000,000, 26 per cent to 27.9 per cent; \$1,000,000 or more, 27.9 per cent.

Particulars of the number and value of dutiable estates and duty assessed, for recent assessment years 1968-69 to 1972-73 are given in the following table.

FEDERAL ESTATE DUTY ASSESSMENTS

	1968-69	1969-70	1970-71	1971-72	1972-73
Estates No.	14,105	16,358	16,502	18,505	16,734
Gross value as assessed . . . \$'000	841,462	1,068,213	993,610	1,045,418	969,778
Deductions(a) "	162,834	222,953	168,396	192,017	176,324
Statutory exemption "	152,206	170,755	179,419	209,377	202,793
Dutiable value "	526,422	674,504	645,791	644,024	590,660
Net duty assessed "	64,045	83,379	80,551	71,750	64,366
Average dutiable value . . . \$	37,322	41,234	39,134	34,803	35,297
Average duty assessed per estate \$	4,541	5,097	4,881	3,877	3,846

(a) Debts, Exempt Estate and State Probate Succession Duties.

Gift duty

The *Gift Duty Act 1941-1972* and the *Gift Duty Assessment Act 1941-1973* impose a gift duty on gifts which are defined as dispositions of property made otherwise than by will, without adequate consideration in money or money's worth. There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty. However, if a return is furnished by the donor, the donee is relieved of this obligation.

Certain exemptions from duty are provided, the more important being: payments to an employees' superannuation or like fund; retiring allowances or gratuities granted to employees; gifts to organisations not carried on for the profit of any individual; gifts to the Australian Government or a State; and small gifts not exceeding \$100.

The rate of gift duty applicable to any particular gifts is fixed by reference to the total value of all gifts made by the same donor within the period of eighteen months before and eighteen months after the time of making that gift. Where the total value of all gifts as defined does not exceed \$10,000 no duty is payable. The present rates of duty are (a) \$1,000 to \$20,000, 3 per cent provided that the gift duty payable shall not exceed one half of the amount by which the gift exceeds \$10,000 or a proportionate amount where more than one gift is involved; (b) \$20,001 to \$40,000, 3 per cent to 6 per cent; (c) \$40,001 to \$240,000, 6 per cent to 26 per cent; (d) \$240,001 to \$1,000,000 and over, 26 per cent to 27.9 per cent.

Particulars of the number of gift duty assessments, value of gifts as assessed and duty assessed for recent assessment years are given in the following table.

FEDERAL GIFT DUTY ASSESSMENTS

	1968-69	1969-70	1970-71	1971-72	1972-73
Assessments No.	10,053	9,807	9,740	10,425	7,199
Value as assessed . . . \$'000	163,476	156,052	147,677	172,244	130,875
Duty assessed "	9,501	8,399	7,796	9,878	7,158

Australian Capital Territory Stamp Duty and Tax

Stamp duty and tax on a range of instruments and transactions connected with the Australian Capital Territory, including Jervis Bay, came into operation on 1 July 1969.

The Australian Capital Territory Taxation (Administration) Act 1969 provides for the administrative procedures necessary for assessment and collection of duty and tax.

Six additional Acts specify the range of dutiable instruments or transactions subject to duty or tax which are as under:

Cheques and other bills of exchange and promissory notes: Five cents on each.

Hire purchase agreements: 1½ per cent of the purchase price (if over \$100) after excluding any deposit and any terms or insurance charges.

Insurance business: Five per cent of premiums other than for life assurance, third party motor vehicles insurance or workers' compensation insurance.

Sales and purchases of marketable securities: Effected through a broker for full sale value. Up to \$100-7 cents for each \$25.00 or part thereof. Over \$100-30 cents for each \$100 or part thereof. The rate applies to the sale price and/or purchase price payable by the seller and purchaser respectively.

Transfer of marketable securities not through a broker: 15 cents for every \$25.00 of the value or part thereof.

Leases and realty: Transfers of freehold or leasehold interests in land situated in the Territory—at the rate of \$1.00 per \$100 (or part thereof) of the value of the interest in the land transferred.

Grant of lease: 30 cents for every \$100 rent or part thereof and if any other consideration not being rent—\$1.00 for every \$100 or part thereof of that other consideration.

A general exemption is provided from all duties for public hospitals, public benevolent institutions, religious institutions and public educational institutions and for visiting diplomatic personnel and their families. The total amount collected as Australian Capital Territory Stamp Duty and Tax was \$2,561,000 in 1971-72, \$3,589,000 in 1972-73, and \$3,995,000 in 1973-74.

Customs duties

A description of the Australian Customs Tariff System is given in Chapter 11, Overseas Transactions. Details of duties collected on the import of commodities classified in accordance with the "Brussels Nomenclature" are given in the following table.

CUSTOMS DUTIES ACCORDING TO BRUSSELS TARIFF DIVISIONS
(\$'000)

<i>Brussels Tariff Division</i>	<i>Source of receipts</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
1	Live animals; animal products	1,164	1,208	1,251	1,114	1,318
2	Vegetable products	1,831	2,536	1,442	1,507	1,540
3	Animal and vegetable fats and oils and their cleavage products; prepared edible fats; animal and vegetable waxes	1,191	2,541	1,987	1,184	1,481
4	Prepared foodstuffs; beverages, spirits and vinegar; tobacco	53,742	60,572	64,215	69,975	76,556
5	Mineral products	5,606	8,992	13,715	7,759	14,278
6	Products of the chemical industry and allied industries	12,995	13,999	16,002	14,625	14,967
7	Artificial resins and plastic materials, cellu- lose esters and ethers, and articles thereof; rubber, synthetic rubbers, factice and articles thereof	16,838	19,719	22,388	20,990	26,595
8	Raw hides and skins, leather, furskins and articles thereof; saddlery and harness; travel goods, handbags and similar con- tainers; articles of gut (other than silk- worm gut)	2,906	3,495	3,842	4,349	4,619
9	Wood and articles of wood; wood charcoal; cork and articles of cork; manufactures of straw, of esparto and of other plaiting materials; basketware and wickerwork	7,941	8,741	9,182	9,025	10,401
10	Paper-making material; paper and paper- board and articles thereof	9,778	10,977	11,353	11,165	12,392
11	Textiles and textile articles	46,865	52,409	59,129	68,994	75,380
12	Footwear, headgear, umbrellas, sunshades, whips, riding-crops and parts therefor; prepared feathers and articles made there- with; artificial flowers; articles of human hair; fans	6,658	9,727	10,437	11,741	11,433
13	Articles of stone, of plaster, of cement, of asbestos, of mica and of similar materials; ceramic products; glass and glassware	9,418	11,379	11,193	11,982	12,607
14	Pearls, precious and semi-precious stones, precious metals, rolled precious metals, and articles thereof; imitation jewellery; coin	1,344	1,849	1,997	2,000	2,282
15	Base metals and articles of base metal	24,659	27,949	34,315	28,254	33,229
16	Machinery and mechanical appliances; elec- trical equipment; parts therefor	65,506	85,255	98,229	96,610	93,971
17	Vehicles, aircraft, and parts therefor; vessels and certain associated transport equipment	46,270	54,920	64,353	66,249	75,076
18	Optical, photographic, cinematographic measuring, checking, precision, medical and surgical instruments and apparatus; clocks and watches, musical instruments; sound recorders and reproducers; television image and sound recorders and re- producers, magnetic; parts therefor	12,246	14,440	15,786	16,173	16,887
19	Arms and ammunition; parts therefor	334	459	483	348	361
20	Miscellaneous manufactured articles	9,438	11,123	11,656	12,228	14,362
21	Works of art, collectors' pieces and antiques Miscellaneous	13	10	12	-31	35
	Primage	4,195	5,132	6,750	7,063	7,535
		5,341	6,142	6,285	5,457	6,109
	<i>Total customs duties and primage</i>	<i>346,281</i>	<i>413,573</i>	<i>466,003</i>	<i>468,761</i>	<i>513,414</i>
	<i>Less Remission of duty under special circumstances</i>	<i>17</i>	<i>14</i>	<i>15</i>	<i>29</i>	<i>33</i>
	Total	346,264	413,559	465,989	468,732	513,381

Excise duties

Details of duties collected in relation to the production of specific commodities are given in the following table.

FEDERAL EXCISE REVENUE: CLASSIFICATION OF NET RECEIPTS
(\$'000)

<i>Source of revenue</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Beer	355,001	369,937	382,479	398,330	419,954
Potable spirits	24,440	26,525	25,923	27,180	30,501
Tobacco	15,711	14,799	15,450	16,979	15,584
Cigars and cigarettes	225,262	230,620	257,034	291,087	312,780
Cigarette papers	833	814	859	908	845
Petrol	253,007	266,627	328,584	420,856	438,486
Diesel fuel	21,520	23,852	30,815	38,352	42,399
Matches	2,384	2,346	2,289	2,519	2,677
Playing cards	127	136	134	149	148
Grape wine . . . . .	..	..	8,702	11,516	3,275
Coal	820	1,157	1,436	1,777	2,032
Canned fruit	1,698	315	333	303	312
Miscellaneous	1,625	2,168	-421	3,163	-469
<i>All items</i>	<i>902,428</i>	<i>939,295</i>	<i>1,053,617</i>	<i>1,213,118</i>	<i>1,268,524</i>
Diesel fuel taxation.	274	351	425	481	511
Less rebates	352	355	567	668	885
	-78	-4	-142	-187	-374
Other rebates	-43	-7	-15	-7	..
Total	902,307	939,283	1,053,460	1,212,925	1,268,150

The quantities of commodities on which excise duty were paid are given in Chapter 11, Overseas Transactions, page 335.

Sales Tax

The general rate of tax levied on all goods other than those specified in the schedules to the *Sales Tax (Exemptions and Classifications) Act 1935-1973* is 15 per cent and goods subject to special rates are taxed at either 2.5 per cent or 27.5 per cent. Prior to 19 August 1970 these special rates were 2.5 per cent and 25 per cent.

Particulars of the sales of taxable goods in each rate class in each State for 1972-73 are given in the following table. The figures relate to sales during the period 1 July to 30 June.

FEDERAL SALES TAX: SALE VALUE OF TAXABLE GOODS INCLUDED IN RETURNS IN EACH RATE CLASS, 1972-73

<i>State</i>	<i>Gross sales of goods taxable at various rates</i>				<i>Total</i>
	<i>2½%</i>	<i>15%</i>	<i>27½%</i>	<i>Other</i>	
	\$'000	\$'000	\$'000	\$'000	\$'000
New South Wales and A.C.T.	463,110	1,101,857	544,975	319	2,110,261
Victoria	401,086	711,458	367,802	330	1,480,676
Queensland	128,588	343,426	166,399	2,442	640,855
South Australia	76,793	173,145	91,341	..	341,279
Western Australia	70,043	163,743	87,715	701	322,202
Tasmania	19,887	46,091	26,223	445	92,646
Northern Territory	1,326	5,624	1,559	..	8,509
Australia	1,160,833	2,545,344	1,286,014	4,237	4,996,428

Sales of taxable goods and sales tax payable for Australia are shown in the following table for recent years. The figures for sales tax payable differ from those for net collections shown on page 586 because the latter include some adjustments in respect of earlier tax years and relate to tax payable on returns lodged during the year, which in general cover sales for the period June to May.

**FEDERAL SALES TAX: SALE VALUE OF GOODS INCLUDED IN RETURNS
AND COLLECTIONS**

Year of sale	Gross taxable sales	Estimated net taxable sales(a)	Net collections		Total
			Taxation Office	Department of Customs and Excise	
	(b)	(b)			
1968-69.	3,397	3,274	480	14	494
1969-70.	3,801	3,662	546	21	567
1970-71.	4,132	3,940	610	23	633
1971-72.	4,428	4,234	661	22	683
1972-73.	4,996	4,798	741	24	765

(a) Represents gross taxable sales less discounts, goods returned, bad debts and other adjustments. (b) Statistics obtained from returns lodged at Taxation Office.

In the foregoing tables, sales include goods transferred to stock for sale by retail, goods imported by persons other than registered taxpayers, and goods used in the business of the taxpayer. Exempt sales relate to goods exempted from sales tax under the *Sales Tax (Exemptions and Classifications) Act 1935-1973*. The figures shown do not represent the total sales of all commodities, as vendors trading only in exempt goods are not required to be registered, and consequently the volume of their sales is not included in the statistics above. In addition, non-taxable sales (i.e. goods sold by one registered taxpayer to another registered taxpayer) are excluded.

Primary production taxes and charges

The following section shows current rates of charges, and receipts from, primary production and other charges. Further information relating to primary production charges is given in Chapter 22, Rural Industry.

Wheat export charge and wheat tax. For details see Chapter 22, Rural Industry.

Wool tax. The rate of wool tax applicable to transactions in wool in the period 1 August 1970 to 30 June 1973 was 1 per cent. From 1 July 1973 the rate has been 2.4 per cent.

Miscellaneous export charges. These consist of charges levied on exports of apples and pears (*Apple and Pear Export Charges Act 1928-1968*), canned fruits (*Canned Fruits Export Charges Act 1926-1966*), dried fruits (*Dried Fruits Export Charges Act 1924-1970*), and eggs (*Eggs Export Charges Act 1947-1965*).

Tobacco charge. The rates of tobacco charge currently in force are as follows:

(a) in respect of leaf grown in Australia and sold to a manufacturer:

(i) 1.1 cents per kilogram of leaf, payable by the grower or other persons who own the leaf immediately before sale, and

(ii) 2.2 cents per kilogram of leaf, payable by the manufacturer;

(b) in respect of leaf grown and used by grower-manufacturers:

(i) where the manufacturer grows nine-tenths of the Australian tobacco leaf used by him—1.1 cents per kilogram of leaf,

(ii) in other cases—2.2 cents per kilogram of leaf.

(See also Chapter 22, Rural Industry.)

Butter fat levy. The *Butter Fat Levy Act 1965-1966* provides for a maximum rate of \$0.48 per hundredweight of butterfat content of specified dairy produce and for the apportionment of the proceeds between overseas marketing (50 per cent) and local promotion (50 per cent). (See also Chapter 22, Rural Industry.)

Dairy Research Levy. The *Dairying Research Levy Act 1972* came into operation on 1 July 1972. It imposes a levy on all whole milk produced in Australia and is payable either on a butterfat or gallonage basis, according to the normal method of payment to producer by the purchaser. The present operative rates of levy are 10 cents per hundredweight butterfat (0.24 cents per kilogram) or 0.033 cents per gallon milk (7.3 cents per 1900 litres).

Canning-fruit charge. The present rate of canning-fruit charge is \$1.00 per tonne of fruit. This rate has operated since 1 December 1973.

Honey levy. The current rate of levy on honey sold for domestic consumption in Australia is 0.5 cents per pound.

Livestock slaughter levy. The present operative rate of levy for cattle is 46 cents per head of which 25 cents is for beef research, 1 cent for research into the meat processing industry and 20 cents to finance the operations of the Australian Meat Board. For sheep and lambs the levy is 3.85 cent per head and the components are 1.75 cents for sheep meat research, 0.1 cents for research into the meat processing industry and 2.00 cents for the Australian Meat Board.

Poultry industry levy. The rates of levy for each hen kept for commercial purposes (the first twenty hens being exempt) were 4.0 cents per fortnight from 1 July 1971 to 8 June 1972, nil per fortnight from 9 June 1972 to 30 June 1972 and 4.0 cents per fortnight from 1 July 1972.

Meat chicken levy. The rate of levy is 10 cents per hundred meat chickens hatched, payable by any hatchery with 20,000 chickens or more.

Pig slaughter levy. The present operative rate of levy is 5 cents for each pig slaughtered for human consumption.

Wine grapes charges. The *Wine Grapes Charges Act 1929-1969* imposes a levy, which is payable by the owner of a winery or distillery, on all grapes delivered to that winery for use in the manufacture of wine. No charge is payable unless 10 tonnes or more of grapes have been used in the manufacture of wine during a season. The operative rate of charge as from 25 January 1973 is \$2.40 per tonne of fresh grapes and \$7.20 in respect of dried grapes.

Dried vine fruits levy. The *Dried Vines Fruits Levy Act 1971* imposes a levy on dried vine fruit where the average return for a season exceeds by more than \$10 the amount per ton that constitutes the base price for that season, with a maximum of \$20 per ton.

Apple and pear stabilisation export duty. The *Apple and Pear Stabilisation Export Duty Act 1971* imposes an export duty on the exportation on consignment of fruit of a season where the average export return for a season exceeds the support price for that season. The maximum rate of export duty is 80 cents per reputed bushel.

Dried fruits levy. The *Dried Fruits Levy Act 1971* imposes a levy on dried fruits of a season received for packing. The rate of levy is in the case of dried vine fruits 50 cents per ton and in the case of dried tree fruits \$2.50 per ton.

FEDERAL PRIMARY PRODUCTION TAXES AND CHARGES RECEIPTS
(\$'000)

<i>Source of revenue</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Apple and pear export charge	280	318	385	408	431
Butter fat levy	1,956	2,189	2,184	2,133	1,731
Canned fruit export charge	330	208	427	342	387
Canning fruit charge	164	99	218	171	136
Dairy research levy . . . . .	..	..	..	..	490
Dried fruits export charge	139	82	232	267	309
Dried fruits levy . . . . .	..	..	..	46	70
Dried vine fruits contributory charge—					
Currants	25	44	..	..	..
Raisins . . . . .	..	..	..	..	..
Sultanas . . . . .	..	..	..	..	..
Egg export charge	4	4	4	4	4
Honey levy	106	103	108	122	120
Livestock slaughter levy—					
Cattle	1,351	1,557	1,811	2,432	3,194
Pigs . . . . .	..	..	..	144	232
Sheep and lambs	1,027	1,229	1,409	1,932	1,637
Chicken meat levy . . . . .	..	68	114	118	118
Poultry industry levy	10,785	11,117	12,819	13,038	12,978
Tobacco charge	313	539	502	567	510
Wheat tax	1,276	788	607	712	639
Wine grapes charge	379	449	534	513	689
Wool tax	15,272	14,028	5,567	5,496	11,171
Other	265	311	377	391	350
Total	33,674	33,133	27,300	28,836	35,196

Pay-roll tax

Federal pay-roll tax came into operation on 2 May 1941 and provided for the imposition of a tax on wages paid or payable in respect of any period of time occurring after 30 June 1941. The tax was payable by employers on all wages and salaries paid or payable in excess of a general exemption. The rate of tax, 2.5 per cent, was unchanged since its inception but the general exemption was increased over the years from \$173.33 to \$1,733.33 per month (\$2,080 per annum to \$20,800 per annum).

From 1 September 1971, in accordance with an agreement between the Australian Government and the States following the June 1971 Premiers' Conference, the Australian Government vacated the pay-roll tax field in favour of the States. It continued, however, to impose pay-roll tax in the Australian Capital Territory and the Northern Territory. The laws relating to pay-roll tax in the Territories are the *Pay-roll Tax (Territories) Assessment Act 1971* and the *Pay-roll Tax (Territories) Act 1971*.

The rate of tax payable in the Territories is 2.5 per cent with a statutory exemption of wages up to \$1,733.33 per month (\$20,800 per annum) or a proportion of that amount in the case of an employer who is an employer also in a State.

On vacating the pay-roll tax field in favour of the States the Australian Government introduced an export incentive grant scheme to provide grants in respect of the 1971-72 and 1972-73 financial years equal to the rebates which would have been payable for those years if the pay-roll tax rebate scheme which had operated from the 1960-61 financial year had continued in operation until it was due to expire on 30 June 1973.

Gross collections of pay-roll tax in 1972-73 amounted to \$6,338,017. Refunds of pay-roll tax during 1972-73 under the pay-roll tax rebate scheme amounted to \$17,980,948. For details of the pay-roll tax rebate scheme, see page 553 of the Official Year Book No. 57.

Stevedoring Industry Charge

The rates in operation since 10 February 1972 have been as follows:

<i>Class of Waterside Worker</i>			<i>Rate</i>
			\$
A	..	..	1.00 per man-hour
B	..	..	1.20 per man-hour
C	..	..	0.82 per man-hour

Class A waterside workers are regular waterside workers on weekly hire in permanent and non-permanent continuous ports. Class B are regular casual workers in non-permanent continuous ports and Class C are regular casual workers in non-continuous and seasonal ports and irregular workers in all ports.

Taxes levied in the Territories

Northern Territory. Taxes levied by the Australian Government in the Northern Territory in the past five years were as follows.

NORTHERN TERRITORY: TAXATION BY TYPE OF TAX
((\$'000))

<i>Type of tax</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Rates on land	450	547	683	950	1,014
Vehicle registration fees	469	530	583	709	736
Drivers', etc., licences(a)	49	56	63	75	79
Liquor taxes(a)	89	120	366	443	486
Racing taxes	33	48	96	112	117
Fees from regulatory services, n.e.i.	49	32	31	37	30
Stamp duties	86	94	176	158	184
Other taxes, fees, fines, etc.	74	92	258	340	374
Total taxation	1,299	1,519	2,256	2,824	3,020

(a) Estimated.

Australian Capital Territory. Taxes levied by the Australian Government in the Australian Capital Territory in the past five years were as follows.

AUSTRALIAN CAPITAL TERRITORY: TAXATION BY TYPE OF TAX
(**\$'000**)

<i>Type of tax</i>	1968-69	1969-70	1970-71	1971-72	1972-73
Rates on land	619	749	1,383	4,362	5,166
Vehicle registration fees	747	830	937	1,090	1,236
Drivers', etc., licences	142	81	101	129	119
Liquor taxes	259	287	340	390	459
Fees from regulatory services, n.e.i.	115	137	150	179	552
Stamp duties . . . . .	..	1,969	2,475	2,561	3,589
Charges on conveyances of interests in land(a)	383	..	..	..	..
Other taxes, fees, fines, etc.	25	25	22	12	15
Total taxation	2,290	4,078	5,408	8,723	11,136

(a) These charges have been levied in the form of stamp duty from 1969-70 onwards.

Rates on land and stamp duties (*see also page 598*) are the principal taxes levied in the Australian Capital Territory.

Gross operating surplus of public enterprises

The *gross operating surplus* of public *trading* enterprises is the excess over working expenses of total revenue from charges before providing for capital consumption and other costs of capital (i.e. interest, debt redemption). *Financial* enterprises do not charge directly, at least not in full, for the services they render; that expenditure is largely financed by net receipts of interest and other transfer income. By convention, the output of these enterprises is valued at cost, so that no operating surplus is recorded in their production accounts. The profits of these enterprises are attributable to their property income. *Income* (including depreciation) of public financial enterprises is therefore arrived at after deducting interest paid and working expenses (i.e. net current expenditure on goods and services) from total receipts of interest and non-dwelling rent.

In the following table the revenue, working expenses and gross operating surplus of public trading enterprises are shown; public financial enterprises are reflected simply on the basis of their income (including depreciation). Further information relating to the more important of these enterprises may be found in the chapters dealing with banking, housing, railways, electric power generation, etc.

PUBLIC TRADING ENTERPRISES: REVENUE, WORKING EXPENSES AND GROSS OPERATING SURPLUS, CLASSIFIED BY INDUSTRY
(\$ million)

Industry	1968-69	1969-70	1970-71	1971-72	1972-73
REVENUE					
Manufacturing	14.7	13.7	13.9	14.9	} Not yet available
Electricity	32.6	36.0	48.5	52.1	
Transport and communication—					
Air transport	257.2	299.3	331.8	333.7	
Rail transport	25.4	27.6	29.0	29.2	
Sea transport	46.1	61.4	70.1	79.1	
Road transport	5.2	5.5	6.9	7.6	
Communication	596.0	659.2	755.8	902.3	
Total	929.8	1,053.1	1,193.6	1,351.9	
Commerce	4.9	5.5	15.9	75.3	
Property and business services—					
Housing	14.0	17.9	18.9	16.9	
Other . . . . .	..	..	6.6	8.1
Total	14.0	17.9	25.5	25.0	
Community social and personal services	6.4	7.3	8.1	8.5	
Total revenue	1,002.5	1,133.4	1,305.5	1,527.8	1,648.8

WORKING EXPENSES(a)					
Manufacturing	11.5	11.2	12.9	14.9	} Not yet available
Electricity	7.8	9.8	11.5	13.0	
Transport and communication—					
Air transport	204.4	234.1	287.3	289.0	
Rail transport	20.9	23.0	24.9	26.7	
Sea transport	38.3	52.5	60.3	68.5	
Road transport	4.5	5.0	6.0	6.6	
Communication	372.9	420.5	486.8	540.2	
Total	640.9	735.1	865.3	931.0	
Commerce	4.9	5.5	14.1	81.4	
Property and business services—					
Housing	14.0	17.1	17.6	15.5	
Other . . . . .	..	..	6.1	7.7
Total	14.0	17.1	23.7	23.2	
Community social and personal services	5.1	5.4	5.9	6.3	
Total working expenses	684.2	784.1	933.4	1,069.8	1,147.9

GROSS OPERATING SURPLUS					
Manufacturing	3.2	2.4	1.1	..	} Not yet available
Electricity	24.9	26.3	37.0	39.1	
Transport and communication—					
Air transport	52.7	65.2	44.6	44.7	
Rail transport	4.5	4.6	4.0	2.5	
Sea transport	7.8	8.9	9.8	10.6	
Road transport	0.8	0.5	0.9	1.0	
Communication	223.1	238.7	269.0	362.1	
Total	288.9	317.9	328.3	420.8	
Commerce . . . . .	..	..	1.8	-6.1
Property and business services—					
Housing . . . . .	..	0.8	1.3	1.4
Other . . . . .	..	..	0.5	0.5
Total . . . . .	..	0.8	1.8	1.9
Community, social and personal services	1.4	1.9	2.2	2.2	
Total gross operating surplus	318.3	349.3	372.1	458.1	500.9

(a) Excludes depreciation and interest charges.

STATE AUTHORITIES

The State authorities dealt with in this section include the central government of each State, statutory bodies created by or under State legislation to carry out activities on behalf of the central government, and incorporated organisations in which individual State governments have a controlling interest.

The transactions of many of the State authorities are itemised in State Consolidated Revenue Funds or in Trust Funds, so that a satisfactory coverage of their transactions can be obtained from a detailed analysis and reclassification of the published accounts whose receipts and payments are summarised in the statement of Treasury balances for each State. The remaining statutory bodies and other publicly owned or controlled organisations maintain accounts entirely, or largely separate from the public accounts although there may be transactions between them and State governments (such as advances and capital contributions, interest and dividends, and votes for running expenses and capital works) which would affect the public accounts. The accounting reports of this group of organisations have to be collected and analysed in order to present a complete statement of the transactions of State authorities—or at least methods of analysis need to be adopted which adequately reflect their transactions so that they are, in principle, covered by the statistics. In the figures which follow in this section all expenditure by State central government authorities on certain institutions, whether direct (e.g. new building charged to Loan Fund) or indirectly by way of current or capital grants to the bodies administering them, has been treated as final expenditure on goods and services by State authorities; fees and gifts from persons or private businesses to these institutions are not included, and neither is the expenditure of the institutions from their own resources. Universities and hospitals are particular examples of organisations for which this practice has been adopted.

Many of these State authorities have been granted autonomy by State legislatures to the extent that they are largely financially independent. Some of these are funded from earmarked tax revenues and are vested with independent borrowing powers. A considerable number of others belong to the category of public enterprises, since they are able to charge for their services so as to cover their costs of operation. These bodies have usually been created to control a specific activity or provide a specific service within a State. It is often the case that in other States similar activities are carried out, or services are provided, by central government or local authorities. Details of the activities of autonomous or semi-autonomous State authorities engaged in construction and maintenance of roads and bridges, provision of water supply and sewerage services, and harbour facilities, are given in the last part of this chapter. Information on the activities of other State authorities engaged in such fields as transport, electricity and gas, housing and banking may be found in chapters relevant to those subjects.

Details of the transactions of State authorities are given in the tables which follow. These figures have been prepared on a national accounting basis, and arranged in a form of presentation which is compatible with the figures given earlier for Australian Government authorities. The figures are generally consistent with those given for State and local authorities in *Australian National Accounts, 1972-73*. Reference should be made to the introduction of *Public Authority Finance, State and Local Authorities, 1972-73*, for definitions and descriptions of items appearing in these tables, and also for further details of the organisations covered by the figures. However because of the preliminary nature of the 1972-73 information at the time of compilation of the statistics State dissections have been shown only for 1971-72.

Additional information relating to the activities of the State authorities may also be found in the Year Books of the individual States.

Receipts and outlay

The receipts and outlay of State authorities for the five year period ended 1972-73 are given in the following table.

STATE AUTHORITIES(a): RECEIPTS AND OUTLAY
(**\$ million**)

	1968-69	1969-70	1970-71	1971-72	1972-73
OUTLAY					
Final consumption expenditure	1,482.6	1,714.8	2,062.7	2,424.9	2,877.1
Gross capital formation—					
Increase in stocks	4.9	6.3	15.7	0.8	23.5
Expenditure on new fixed assets	1,505.5	1,604.2	1,690.8	1,881.1	2,019.5
Expenditure on existing assets (net)	0.2	17.7	37.1	100.2	69.0
<i>Total gross capital formation</i>	<i>1,510.6</i>	<i>1,628.3</i>	<i>1,743.6</i>	<i>1,982.1</i>	<i>2,112.0</i>
Transfer payments—					
Interest	604.2	664.0	721.9	812.8	872.1
Transfers to persons	35.1	40.4	46.5	64.3	79.0
Subsidies	15.5	20.8	15.9	16.0	14.0
Transfers overseas	0.2	0.2	0.3	0.3	0.3
Grants for private capital purposes	14.7	18.8	15.7	12.5	16.0
Grants to local authorities	75.4	74.5	92.5	105.2	153.8
<i>Total transfer payments</i>	<i>745.1</i>	<i>818.8</i>	<i>892.9</i>	<i>1,011.0</i>	<i>1,135.2</i>
Net advances—					
To the private sector	53.7	68.2	87.6	91.0	83.1
To public financial enterprises	26.1	21.9	35.4	37.7	42.0
To local authorities	5.4	7.9	4.0	4.5	4.9
<i>Total net advances</i>	<i>85.2</i>	<i>97.9</i>	<i>127.0</i>	<i>133.2</i>	<i>130.0</i>
<i>Total outlay</i>	<i>3,823.6</i>	<i>4,259.8</i>	<i>4,826.3</i>	<i>5,551.3</i>	<i>6,254.3</i>
<i>of which—</i>					
<i>current outlay</i>	<i>2,227.8</i>	<i>2,533.6</i>	<i>2,955.6</i>	<i>3,435.9</i>	<i>4,012.3</i>
<i>capital outlay</i>	<i>1,595.9</i>	<i>1,726.2</i>	<i>1,870.6</i>	<i>2,115.4</i>	<i>2,242.0</i>

RECEIPTS AND FINANCING ITEMS

Receipts—					
Taxes, fees, fines, etc.	860.4	960.9	1,008.7	1,412.4	1,777.1
Income from public enterprises	346.7	389.3	361.9	378.0	309.6
Interest, etc., received	139.3	164.7	201.4	215.9	238.4
Grants from the Australian Government—					
for current purposes	1,166.6	1,319.6	1,662.5	1,756.2	2,057.2
for capital purposes	263.9	311.3	554.3	625.9	706.1
<i>Total receipts</i>	<i>2,776.8</i>	<i>3,145.8</i>	<i>3,788.8</i>	<i>4,388.4</i>	<i>5,088.4</i>
Financing items—					
Net borrowing—					
Public Corporation securities	262.5	243.2	286.5	379.4	(b)
Other general government securities	3.4	11.9	32.2	27.5	(b)
Advances from the Australian Government (net)—					
For loan works purposes	483.5	517.9	366.4	549.6	601.3
Other	143.5	151.1	154.8	37.1	62.8
Net receipts of private trust funds	26.7	34.3	37.1	48.9	(b)
Reduction in cash and bank balances	-52.6	-32.9	-63.3	-73.3	(b)
Reduction in security holdings—					
Investments of private trust funds	-22.5	-24.1	-22.8	-40.2	(b)
Investments of governmental trust funds and public corporations	-16.2	-25.6	1.8	-11.1	(b)
Other funds available (including errors and omissions)—					
Depreciation allowances	188.7	213.6	208.7	231.5	247.4
Other	29.7	24.6	36.1	13.5	(c)254.5
<i>Total financing items</i>	<i>1,046.8</i>	<i>1,114.0</i>	<i>1,037.5</i>	<i>1,162.9</i>	<i>1,165.9</i>
<i>Total funds available</i>	<i>3,823.6</i>	<i>4,259.8</i>	<i>4,826.3</i>	<i>5,551.3</i>	<i>6,254.3</i>

(a) Excluding financial enterprises. (b) Included in other funds available, other. (c) See note (a).

The following table provides details of the receipts and outlay of State authorities in each of the six States.

STATE AUTHORITIES(a): RECEIPTS AND OUTLAY, BY STATE, 1971-72
(\$ million)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
OUTLAY							
Final consumption expenditure	893.0	629.7	333.6	222.1	247.1	99.4	2,424.9
Gross capital formation—							
Increase in stocks	1.5	-1.9	-0.5	0.7	2.1	-1.0	0.8
Expenditure on new fixed assets	614.7	488.4	300.1	183.8	205.1	88.9	1,881.1
Expenditure on existing assets (net)	18.8	7.2	3.2	11.1	59.4	0.5	100.2
<i>Total gross capital formation</i>	<i>635.1</i>	<i>493.7</i>	<i>302.8</i>	<i>195.6</i>	<i>266.6</i>	<i>88.4</i>	<i>1,982.1</i>
Transfer payments—							
Interest	244.9	246.7	109.7	94.1	70.9	46.5	812.8
Transfers to persons	33.1	9.9	8.4	4.5	7.1	1.3	64.3
Subsidies	9.5	1.8	2.2	0.2	2.2	0.1	16.0
Transfers overseas . . . . .	..	0.3	..	..	..	..	0.3
Grants for private capital purposes	3.0	4.2	1.7	2.5	0.7	0.4	12.5
Grants to local authorities	42.8	9.1	30.6	4.7	14.5	3.5	105.2
<i>Total transfer payments</i>	<i>333.3</i>	<i>271.9</i>	<i>152.6</i>	<i>106.0</i>	<i>95.4</i>	<i>51.8</i>	<i>1,011.0</i>
Net advances—							
To the private sector	19.7	27.0	16.7	6.1	16.0	5.5	91.0
To public financial enterprises	26.5	..	..	11.2	0.1	..	37.7
To local authorities	-0.2	0.5	3.4	-0.4	0.1	1.1	4.5
<i>Total net advances</i>	<i>46.0</i>	<i>27.5</i>	<i>20.1</i>	<i>16.9</i>	<i>16.2</i>	<i>6.6</i>	<i>133.2</i>
Total outlay	1,907.3	1,422.9	809.0	540.7	625.3	246.2	5,551.3
of which—							
current outlay	1,226.3	901.7	486.2	328.1	342.5	151.2	3,436.0
capital outlay	681.0	521.2	322.8	212.5	282.8	95.0	2,115.4
RECEIPTS AND FINANCING ITEMS							
Receipts—							
Taxes, fees, fines, etc.	581.3	414.2	172.3	107.3	105.6	31.7	1,412.4
Income from public enterprises	132.7	107.0	44.6	40.4	35.2	18.2	378.0
Interest, etc., received	58.8	54.4	27.2	22.1	43.1	10.4	215.9
Grants from the Australian Government—							
for current purposes	564.0	427.6	283.8	194.1	197.0	89.7	1,756.2
for capital purposes	189.0	136.3	117.6	69.7	80.2	33.1	625.9
<i>Total receipts</i>	<i>1,525.8</i>	<i>1,139.5</i>	<i>645.4</i>	<i>435.6</i>	<i>461.1</i>	<i>183.1</i>	<i>4,388.3</i>
Financing items—							
Net borrowing—							
Public corporation securities	103.0	138.3	36.2	17.6	74.6	9.8	379.4
Other general government securities . . . . .	..	..	27.6	..	-0.1	..	27.5
Advances from the Australian Government(net)—							
For loan works purposes	173.1	141.4	69.4	76.2	50.0	39.6	549.6
Other	22.5	1.8	5.2	-0.3	4.7	3.2	37.1
Net receipts of private trust funds	5.8	23.7	9.2	0.8	6.8	2.5	48.9
Reduction in cash and bank balances	-13.9	-28.2	-21.7	-4.4	-5.4	0.4	-73.3
Reduction in security holdings—							
Investment of private trust funds	-5.8	-23.7	..	..	-8.5	-2.2	-40.2
Investment of governmental trust funds and public corporations	-7.3	-5.1	-1.8	3.2	-1.1	1.0	-11.1
Other funds available (including errors and omissions)—							
Depreciation allowances	103.6	59.3	24.6	18.8	18.4	6.8	231.5
Other	0.5	-24.1	14.9	-4.8	24.8	2.0	13.6
<i>Total financing items</i>	<i>381.5</i>	<i>283.4</i>	<i>163.6</i>	<i>107.1</i>	<i>164.2</i>	<i>63.1</i>	<i>1,163.0</i>
Total funds available	1,907.3	1,422.9	809.0	540.7	625.3	246.2	5,551.3

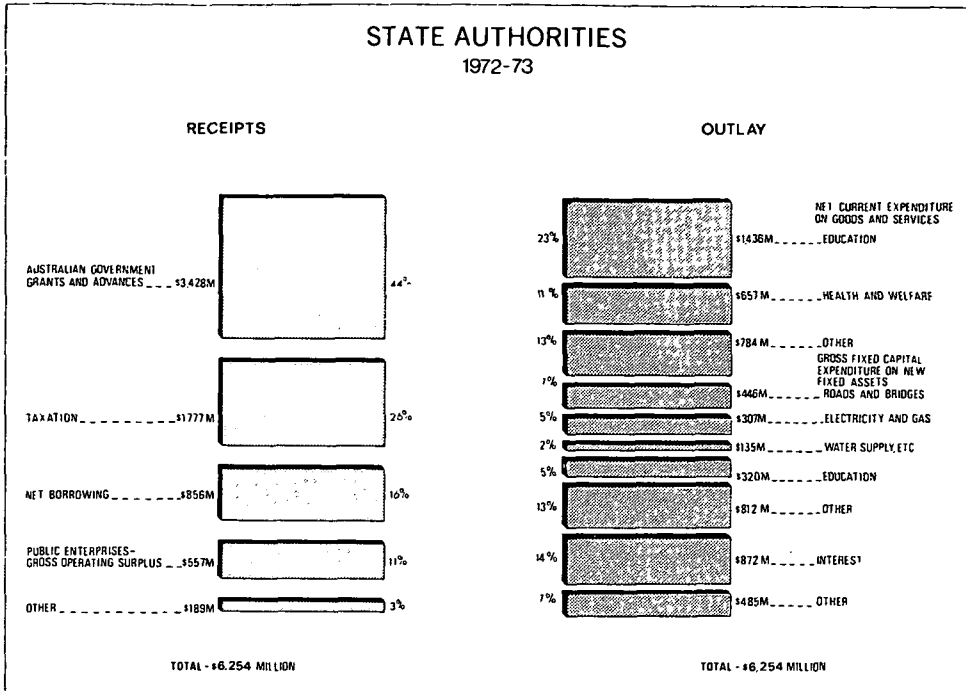


PLATE 40

Main components of outlay

The main component of the outlay of State authorities is expenditure on goods and services. As in the case of authorities of the Australian Government, this expenditure (as shown here) consists of purchases of goods and services for current consumption, less any charges made by the authorities, together with expenditure on acquisition of fixed assets and changes in stocks, and may be regarded as a measure of demand for goods and services. The following tables show final consumption expenditure and expenditure on new fixed assets classified by purpose for State Authorities.

STATE AUTHORITIES: FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE
(\$ million)

Purpose	1968-69	1969-70	1970-71	1971-72	1972-73
General public services—					
Law, order and public safety	179.7	202.6	235.3	276.7	323.3
General administration, n.e.c.	115.9	131.7	161.1	172.3	n.a.
Education	707.3	837.9	1,006.1	1,203.5	1,436.0
Health	308.8	354.4	434.1	500.0	574.7
Social Security and Welfare	39.3	43.5	51.9	67.9	82.2
Housing and community amenities—					
Housing	0.9	1.0	1.3	1.6	n.a.
Community and regional development	2.9	3.8	5.0	6.8	n.a.
Protection of the environment		0.1	0.1	0.6	n.a.
Recreation and related cultural services	20.3	23.1	26.9	31.2	37.7
Economic services—					
General administration, regulation and research	2.4	2.5	3.9	4.7	
Agriculture, forestry, fishing—					
Soil and water resources management	28.1	31.0	36.4	41.7	
Forest resources management	6.6	8.2	9.3	10.8	
Services to agricultural and pastoral industries and the fisheries	45.4	51.1	59.4	70.7	188.0
Mining, manufacturing and construction	8.7	9.2	12.0	14.8	
Electricity, gas and water supply	0.9	1.1	1.6	2.0	
Transport and communication	7.7	6.5	8.8	10.5	
Other economic services	3.8	5.2	6.6	6.3	
Other purposes	3.8	2.1	3.2	2.8	n.a.
Total	1,482.6	1,714.8	2,062.8	2,424.9	2,877.1

**STATE AUTHORITIES: FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE
1971-72
(\$ million)**

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
General public services—							
Law, order and public safety	111.4	63.1	41.7	21.3	28.8	10.4	276.7
General administration, n.e.c.	88.6	20.6	24.7	11.8	16.3	10.3	172.3
Education	424.6	358.5	144.5	124.1	109.3	42.5	1,203.5
Health	185.0	123.5	76.9	41.7	54.8	18.1	500.0
Social security and welfare	15.6	22.3	11.6	7.2	8.7	2.5	67.9
Housing and community amenities—							
Housing	0.6	-0.2	0.3	0.4	-0.1	0.4	1.6
Community and regional development	3.2	2.9	..	0.1	0.4	0.2	6.8
Protection of the environment	0.3	0.1	0.1	..	0.1	..	0.6
Recreation and related cultural services	10.9	8.0	2.5	4.1	3.1	2.5	31.2
Economic services—							
General administration, regulation and research	-1.5	-0.4	1.6	2.9	1.3	0.7	4.7
Agriculture, forestry, fishing—							
Soil and water resources management	15.3	8.4	6.5	3.2	5.7	2.6	41.7
Forest resources management	5.9	4.0	-0.4	..	0.3	1.2	10.8
Services to agricultural and pastoral industries and to fisheries	20.9	13.3	16.8	3.5	10.7	5.7	70.7
Mining, manufacturing and construction	4.0	1.7	2.3	2.2	3.8	0.8	14.8
Electricity, gas and water supply	1.0	..	0.7	..	..	0.3	2.0
Transport and communication	3.6	3.0	1.9	..	1.4	0.6	10.5
Other economic services	4.1	-0.3	1.7	-1.1	1.9	0.1	6.3
Other purposes	-0.5	1.0	0.2	0.7	0.8	0.5	2.8
Total	893.0	629.7	333.6	222.1	247.1	99.4	2,424.9

**STATE AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS CLASSIFIED BY PURPOSE
(\$ million)**

	1968-69	1969-70	1970-71	1971-72	1972-73
General public services—					
Law, order and public safety	23.3	24.4	26.3	29.5	31.0
General administration, n.e.c.	17.1	17.9	24.9	17.9	n.a.
Defence . . . . .	..	..	..	..	..
Education	190.5	207.3	232.3	272.7	319.5
Health	74.2	80.9	85.7	95.0	99.4
Social security and welfare	5.4	5.6	5.8	8.5	..
Housing and community amenities—					
Housing	65.0	72.3	85.9	81.4	90.6
Community and regional development	0.2	0.5	0.7	1.0	n.a.
Protection of the environment	86.0	107.1	132.8	159.6	185.7
Recreation and related cultural services	7.3	11.2	16.9	25.9	n.a.
Economic services—					
General administration, regulation and research . . . . .	..	..	..	0.3	..
Agriculture, forestry, fishing—					
Soil and water resources management	55.1	56.4	59.4	59.9	56.0
Forest resources management	25.3	27.7	29.4	33.6	43.0
Services to agricultural and pastoral industries, and to fisheries	9.0	10.1	9.2	10.6	15.0
Mining, manufacturing and construction—					
Mining	12.0	13.1	8.7	10.7	12.0
Manufacturing and construction	5.5	6.7	12.4	15.5	n.a.
Electricity and gas	324.7	331.0	307.1	310.7	307.4
Water supply	77.3	90.0	89.6	114.2	134.6
Transport and communication—					
Rail transport	114.7	120.9	123.1	135.9	138.0
Sea transport	56.2	51.0	53.5	74.1	67.0
Road transport—					
Road systems and ancillary facilities	306.7	341.9	370.5	406.4	446.0
Other	0.3	0.4	0.3	0.3	..
Urban transit(a)	3.4	7.4	9.4	8.3	6.5
Pipelines	28.1	6.1	1.6	2.6	2.0
Other transport services	0.1	0.1	0.1	0.1	n.a.
Other economic services	30.8	38.8	41.1	33.1	n.a.
Other purposes . . . . .	..	..	..	1.4	n.a.
Total	1,518.5	1,628.9	1,726.6	1,909.2	2,047.5
<i>of which—</i>					
Public financial enterprises	13.0	24.6	35.8	28.1	28.0

(a) Excludes suburban rail transport systems.

STATE AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS CLASSIFIED BY PURPOSE
1971-72

(\$ million)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
General public services—							
Law, order and public safety	10.9	5.0	6.7	2.9	1.8	2.2	29.5
General administration n.e.c.	3.7	4.4	4.1	3.8	0.9	0.9	17.9
Defence . . . . .	..	..	..	..	..	..	..
Education	94.5	77.8	35.0	30.0	22.9	12.6	272.7
Health	29.4	17.8	13.9	18.8	10.4	4.7	95.0
Social security and welfare	3.5	1.6	1.9	0.2	0.8	0.5	8.5
Housing and community amenities—							
Housing	37.1	14.7	12.7	6.4	9.4	1.1	81.4
Community and regional development . . . . .	..	0.9	..	..	0.1	..	1.0
Protection of the environment	77.4	60.8	0.2	8.9	12.2	0.1	159.6
Recreation and related cultural services	20.6	3.1	0.2	0.1	1.0	0.9	25.9
Economic services—							
General administration, regulation and research	0.1	..	..	..	0.2	..	0.3
Agriculture, forestry, fishing—							
Soil and water resources management	22.6	12.0	16.3	2.4	5.9	0.6	59.9
Forest resources management	10.6	6.7	7.4	0.4	5.4	3.1	33.6
Services to agricultural and pastoral industries and to fisheries	1.0	3.7	3.3	0.7	1.4	0.5	10.6
Mining, manufacturing and construction—							
Mining	3.9	4.2	1.2	1.1	0.1	0.1	10.7
Manufacturing and construction	4.5	0.2	1.5	5.2	4.0	..	15.5
Electricity and gas	71.2	94.2	54.7	21.3	36.5	32.8	310.7
Water supply	40.8	36.5	3.7	20.3	12.3	0.6	114.2
Transport and communication—							
Rail transport	46.4	17.7	40.1	8.6	15.6	7.5	135.9
Sea transport	25.6	11.8	14.9	4.6	10.8	6.4	74.1
Road transport—							
Road systems and ancillary facilities	104.2	114.7	80.7	41.8	51.1	14.0	406.4
Other	0.2	0.1	..	..	0.1	..	0.3
Urban transit(a)	2.9	0.5	..	3.1	1.6	0.2	8.3
Pipelines . . . . .	..	..	..	2.6	..	..	2.6
Other transport services . . . . .	..	..	..	..	..	..	0.1
Other economic services	16.7	5.3	8.4	1.0	1.4	0.3	33.1
Other purposes . . . . .	..	..	1.3	..	0.1	..	1.4
Total	627.7	493.9	308.2	184.3	206.2	88.9	1909.2
of which—							
Public financial enterprises	13.0	5.5	8.1	0.5	1.0	..	28.1

(a) Excludes suburban rail transport systems.

Main components of receipts

The major source of funds available to State authorities is in the form of financial assistance by way of grants and advances from the Australian Government. Taxation is also an important source of revenue, and central government borrowing by way of Australian Government securities issued on behalf of the States as well as borrowing by statutory bodies accounted for a significant proportion of the total funds available, in marked contrast to the relatively minor role played by borrowing in financing the activities of the Australian Government authorities.

Details of Australian Government financial assistance to the States have already been given in the section dealing with Australian Government authorities, and government borrowing activities are dealt with later in this chapter.

The following tables provide details of the taxes collected by State authorities classified by type of tax. Further information relating to State taxes may be found in *Public Authority Finance; Taxation, 1972-73*.

STATE AUTHORITIES: TAXATION BY TYPE OF TAX
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
Estate, gift, probate and succession duties	134.4	137.3	149.4	144.6	163.3
Property taxes—					
Land tax	75.1	77.0	91.5	102.8	112.9
Metropolitan improvement rates	7.3	8.4	8.9	9.4	9.6
Other	2.4	2.8	1.9	1.7	2.2
<i>Total property</i>	<i>84.8</i>	<i>88.2</i>	<i>102.3</i>	<i>113.9</i>	<i>124.7</i>
Liquor taxes	38.5	41.0	44.6	48.0	52.1
Taxes on gambling—					
Lotteries	30.7	32.4	33.3	35.4	38.0
Poker machines	26.3	30.4	34.8	38.3	42.6
Racing	50.2	57.3	63.4	75.9	91.7
Casino tax . . . . .	..	..	..	..	0.5
<i>Total gambling</i>	<i>107.2</i>	<i>120.2</i>	<i>131.5</i>	<i>149.6</i>	<i>172.7</i>
Taxes on ownership and operation of motor vehicles—					
Vehicle registration fees and taxes	136.8	150.6	159.6	190.4	222.8
Drivers', etc., licences and fees	16.1	16.7	19.4	25.1	27.9
Stamp duty on vehicle registration	16.7	19.2	20.3	24.3	30.9
Road transport taxes	14.5	15.8	16.4	17.1	17.6
Road maintenance contributions	32.7	35.6	37.4	38.8	40.0
Motor car third party insurance surcharge and duties	4.1	4.8	5.1	5.9	6.9
<i>Total motor vehicles</i>	<i>220.9</i>	<i>242.8</i>	<i>258.2</i>	<i>301.7</i>	<i>346.1</i>
Pay-roll tax . . . . .	..	..	..	304.7	449.6
Fire brigades contributions from insurance companies, etc.	22.2	25.2	28.1	33.6	38.9
Stamp duties, n.e.i.	206.6	256.9	239.9	249.2	350.8
Licences and registration fees, n.e.i.	5.9	6.6	7.3	8.9	10.7
Other taxes, fees, fines, etc.	39.9	42.8	47.3	58.2	68.2
<i>Total taxation</i>	<i>860.4</i>	<i>960.8</i>	<i>1,008.7</i>	<i>1,412.4</i>	<i>1,777.1</i>

STATE AUTHORITIES: PROPORTION OF EACH TYPE OF TAX TO TOTAL TAXATION
(per cent)

	1968-69	1969-70	1970-71	1971-72	1972-73
Estate, gift, probate and succession duties	15.6	14.3	14.8	10.2	9.2
Property taxes	9.9	9.2	10.1	8.1	7.0
Liquor taxes	4.5	4.3	4.4	3.4	2.9
Taxes on gambling	12.4	12.5	13.0	10.6	9.7
Taxes on ownership and operation of motor vehicles	25.7	25.3	25.6	21.4	19.5
Pay-roll tax . . . . .	..	..	..	21.6	25.3
Fire brigades contribution from insurance companies, etc.	2.6	2.6	2.8	2.5	2.2
Stamp duties n.e.i.	24.0	26.8	23.8	17.6	19.7
Licences and registration fees n.e.i.	0.7	0.7	0.7	0.6	0.6
Other taxes, fees, fines, etc.	4.7	4.5	4.7	4.2	3.9
<i>Total taxation</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

STATE AUTHORITIES: TAXATION BY TYPE OF TAX, 1971-72
(\$ million)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Total</i>
Estate, gift, probate and succession duties	58.3	44.6	19.5	11.5	7.6	3.1	144.6
Property taxes—							
Land tax	46.2	29.1	5.5	9.7	9.4	2.9	102.8
Metropolitan improvement rates		8.0	..	..	1.4	..	9.4
Other	0.4	..	1.1	0.3	..	..	1.8
<i>Total property</i>	<i>46.6</i>	<i>37.1</i>	<i>6.5</i>	<i>10.0</i>	<i>10.9</i>	<i>2.9</i>	<i>114.0</i>
Liquor taxes	18.9	12.8	6.9	3.6	4.4	1.3	47.9
Taxes on gambling—							
Lotteries	19.9	6.8	4.7	1.9	2.0	..	35.3
Poker machines	38.3	..	..	..	..	..	38.3
Racing	28.9	25.0	10.4	4.3	5.6	1.7	75.9
<i>Total gambling</i>	<i>87.1</i>	<i>31.8</i>	<i>15.1</i>	<i>6.3</i>	<i>7.6</i>	<i>1.7</i>	<i>149.6</i>
Taxes on ownership and operation of motor vehicles—							
Vehicle registration fees and taxes	69.8	54.4	27.1	17.9	15.3	6.0	190.5
Drivers' etc., licences and fees	11.4	7.8	1.7	1.7	1.7	0.9	25.2
Stamp duty on vehicle registration	5.4	9.0	3.9	3.3	2.2	0.4	24.2
Road transport taxes	6.3	2.1	6.7	..	1.4	0.4	16.9
Road maintenance contributions	17.7	9.1	4.9	3.3	3.8	..	38.8
Motor car third party insurance surcharge and duties . . . . .	..	3.0	..	1.0	1.6	0.3	5.9
<i>Total motor vehicles</i>	<i>110.6</i>	<i>85.4</i>	<i>44.3</i>	<i>27.2</i>	<i>26.0</i>	<i>8.1</i>	<i>301.6</i>
Pay-roll tax	126.7	89.8	33.8	22.8	23.8	7.9	304.8
Fire brigades contribution from insurance companies, etc.	12.5	9.6	6.5	1.4	2.7	1.0	33.6
Stamp duties n.e.i.	98.8	79.7	28.9	18.5	18.9	4.5	249.3
Licences and registration fees n.e.i.	2.7	2.5	1.5	1.1	1.0	0.1	8.9
Other taxes, fees, fines, etc.	19.2	20.8	9.4	4.8	2.7	1.2	58.1
Total taxation	581.3	414.2	172.3	107.3	105.6	31.7	1,412.4

LOCAL AUTHORITIES

In each State of Australia there exists a system of local government whose powers and responsibilities are in general similar, and cover such matters as the construction and maintenance of roads, streets and bridges, water, sewerage and drainage systems, health and sanitary services, the supervision of building, and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers. While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc., vary considerably from State to State, and even within States.

The areas over which local government bodies, numbering in excess of 900, exercise general control, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires; and in Tasmania as cities and municipalities. In New South Wales some local authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g. the county councils. Within shires there are also some municipal units known as urban areas. Apart from the more thinly populated parts of New South Wales and South Australia, and the Australian Territories (except for the City of Darwin and Alice Springs), practically the whole of Australia comes within local government jurisdiction. For further details *see* State Year Books.

Area, population, dwellings, and value of rateable property

The area, population, dwellings, and the value of rateable property in the incorporated areas of each State are shown in the following table. The valuations relate to rateable property only and exclude government and other non-rateable property, whose value in the aggregate is considerable. In some cases councils rate on annual value, or unimproved capital value, or improved capital value, or partly on each of these bases of valuation. The amounts stated are the totals for the areas rated according to each basis of valuation. Particulars of dwellings are in accordance with the definition used in the 1971 census, and are compiled from information collected on the census schedules. For the purpose of the census a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide reference and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include vacant dwellings available for sale and renting, "week-end" and holiday dwellings, and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

In the following table particulars of number, area, and value of rateable property refer to estimates made, where practicable, for the capital city statistical division and outside this division. Wherever the statistical boundary cuts across a local government area the estimates have involved either the inclusion or exclusion of the whole of the local government authority concerned in, or from, the capital city statistical division. Particulars of population refer to estimates made for capital city statistical division and outside this division in accordance with the definition of boundaries used in the 1971 census and exclude migratory population and population in unincorporated areas.

**LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND
VALUE OF RATEABLE PROPERTY, STATES**

Location	Number	Area '000 hectares	Population '000	Dwellings No.	Value of rateable property		
					Unimproved capital value \$'000	Improved capital value \$'000	Annual value \$'000
New South Wales(a)—							
Sydney Statistical Division	40	408	(c)2,874	(d)915,111	7,333,921	14,531,290	1,081,185
Other(b)	183	70,158	(c)1,828	(d)609,143	2,842,357	n.a.	n.a.
Total New South Wales	223	70,566	(c)4,702	(d)1,524,254	10,176,278	n.a.	n.a.
Victoria(e)—							
Melbourne Statistical Division	55	782	2,561	795,836	n.a.	11,564,438	630,077
Other(f)	155	21,925	980	310,217	n.a.	5,714,895	292,668
Total Victoria	210	22,707	3,542	1,106,053	n.a.	17,279,333	922,745
Queensland(g)—							
Brisbane Statistical Division	9	983	950	293,979	1,024,613	n.a.	n.a.
Other	122	171,520	956	294,298	1,173,706	n.a.	n.a.
Total Queensland	131	172,503	1,906	588,277	2,198,319	n.a.	n.a.
South Australia(h)—							
Adelaide Statistical Division	31	232	843	264,406	n.a.	2,895,000	145,000
Other	106	14,843	330	108,211	n.a.	1,410,000	70,000
Total South Australia	137	15,075	1,173	372,617	n.a.	4,305,000	215,000
Western Australia(i)—							
Perth Statistical Division	26	537	739	238,580	1,109,023	n.a.	62,508
Other	112	252,226	329	104,571	349,803	n.a.	14,011
Total Western Australia	138	(j)252,550	(b)1,068	343,151	1,458,827	n.a.	76,519
Tasmania(c)—							
Hobart Statistical Division	5	94	158	48,313	221,366	780,321	48,833
Other	44	6,739	238	76,812	262,762	1,104,754	66,025
Total Tasmania	49	6,833	396	125,125	484,128	1,885,075	114,858

(a) Based on year ended 31 December 1972. (b) Excludes Lord Howe Island, unincorporated areas and migratory population. (c) As at 30 June 1973. (d) As at 30 June 1973; Estimated on basis of Census 30 June 1971. (e) Based on year ended 30 September 1972. (f) Excludes Yallourn Works Area, under the jurisdiction of the State Electricity Commission, and other unincorporated areas. (g) Year ended 30 June 1972. Total population less migratory and unincorporated. (h) Year ended 30 June 1970. (i) Year ended 30 June 1973. Excludes unincorporated areas. (j) Area as determined in 1973 by the Division of National Mapping, Department of Minerals and Energy.

Receipts, financing items and outlay

The following tables show details of the receipts, financing items and outlay of all local authorities for the years 1968-69 to 1972-73, and of local authorities in each of the six States in 1971-72. Figures shown for 1972-73 are based on very limited data, but may be taken as rough indicators of orders of magnitude.

LOCAL AUTHORITIES: RECEIPTS AND OUTLAY
(£ million)

	1968-69	1969-70	1970-71	1971-72	1972-73p
OUTLAY					
Final consumption expenditure—					
General public services	68.2	74.1	77.0	97.3	n.a.
Health	19.1	19.4	27.2	29.3	33.3
Social security and welfare	0.3	0.4	0.5	0.7	0.8
Housing and community amenities—					
Protection of the environment	11.7	12.6	14.8	15.1	n.a.
Other	0.8	1.1	1.1	1.6	n.a.
Recreation and related cultural services	42.2	46.5	50.8	58.3	n.a.
Economic services	14.7	15.4	17.0	17.9	19.0
Other purposes . . . . .	..	0.2	0.3	0.3	n.a.
<i>Total</i>	<i>157.1</i>	<i>169.8</i>	<i>188.8</i>	<i>220.5</i>	<i>247.9</i>
Gross capital formation—					
Expenditure on new fixed assets—					
General public services	23.4	26.2	29.7	29.6	n.a.
Health	0.3	0.6	0.4	0.3	0.3
Social security and welfare	0.2	0.2	0.2	0.2	0.2
Housing and community amenities—					
Protection of the environment	30.8	31.0	30.5	36.3	41.3
Other	0.6	2.2	0.7	1.1	n.a.
Recreation and related cultural services	17.3	17.6	21.1	24.0	n.a.
Economic services—					
Mining, manufacturing and construction	0.8	1.0	1.1	1.9	n.a.
Electricity and gas	62.2	67.3	76.2	71.6	75.6
Water supply	33.7	37.6	35.3	36.3	43.4
Transport and communication—					
Road systems and ancillary facilities	261.0	265.0	281.5	299.5	350.0
Urban transit systems	1.9	2.9	0.6	1.0	0.5
Other economic services	5.7	2.7	0.6	0.9	n.a.
Other purposes	0.2	0.2	0.3	0.4	n.a.
<i>Total</i>	<i>438.2</i>	<i>454.4</i>	<i>478.2</i>	<i>503.2</i>	<i>587.5</i>
Expenditure on existing assets and stocks	-0.2	0.3	-1.6	-3.6	-3.5
Interest paid	72.9	79.8	88.6	96.8	106.0
Net advances to the private sector	0.9	1.0	0.9	0.9	0.9
<i>Total outlay</i>	<i>668.8</i>	<i>705.3</i>	<i>754.9</i>	<i>817.8</i>	<i>938.8</i>
of which—					
Current outlay	230.0	249.6	277.4	317.3	353.9
Capital outlay	438.9	455.7	477.5	500.5	584.9

RECEIPTS AND FINANCING ITEMS

Receipts—					
Taxes, fees, fines, etc.—					
Rates on land	345.5	372.7	400.7	442.9	485.4
Licences, etc.	12.7	9.4	10.1	4.7	12.6
<i>Total</i>	<i>358.2</i>	<i>382.1</i>	<i>410.8</i>	<i>447.6</i>	<i>498.0</i>
Income from public enterprises	71.0	83.1	85.1	93.4	99.4
Property income	-0.6	-0.5	-0.4	-0.3	-0.4
Grants from State authorities	75.4	74.5	92.5	105.2	153.8
<i>Total receipts</i>	<i>504.1</i>	<i>539.3</i>	<i>588.0</i>	<i>645.9</i>	<i>750.8</i>
Financing items—					
Net borrowing—local authority securities	107.3	86.0	93.0	111.2	(a)
Advances from State authorities	5.4	7.9	4.0	4.5	4.9
Reduction in cash and bank balances	-11.8	8.2	9.2	-4.7	(a)
Reduction in security holdings	-1.0	-4.0	-9.2	-9.2	(a)
Other funds available (including errors and omissions)—					
Depreciation allowances	23.7	26.2	28.1	30.1	32.6
Other	41.3	41.7	41.7	40.1	(b)150.5
<i>Total financing items</i>	<i>164.8</i>	<i>166.0</i>	<i>166.8</i>	<i>172.0</i>	<i>188.0</i>
<i>Total funds available</i>	<i>668.8</i>	<i>705.3</i>	<i>754.9</i>	<i>817.8</i>	<i>938.8</i>

(a) Included in Other funds available, Other. (b) See note (a).

LOCAL AUTHORITIES: RECEIPTS AND OUTLAY, 1971-72

(\$ million)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
OUTLAY							
Final consumption expenditure—							
General public services	33.6	27.8	15.2	5.4	13.2	2.1	97.3
Health	9.9	8.8	7.0	1.7	1.3	0.6	29.3
Social security and welfare . . . . .	..	0.7	..	..	..	..	0.7
Housing and community amenities—							
Protection of the environment	4.7	5.5	1.8	1.6	0.8	0.7	15.1
Other	1.6	..	..	..	..	..	1.6
Recreation and related cultural services	24.4	16.1	3.5	3.4	9.4	1.6	58.3
Economic services	8.7	3.6	2.8	1.3	0.9	0.5	17.9
Other purposes . . . . .	..	0.3	..	..	..	..	0.3
Total	83.0	62.8	30.3	13.4	25.6	5.6	220.5
Gross capital formation—							
Expenditure on new fixed assets—							
General public services	10.9	8.4	-3.9	4.7	8.9	0.5	29.6
Health . . . . .	..	0.3	..	..	..	..	0.3
Social security and welfare . . . . .	..	0.2	..	..	..	..	0.2
Housing and community amenities—							
Protection of the environment	10.7	..	22.5	..	..	3.1	36.3
Other	1.1	..	..	..	..	..	1.1
Recreation and related cultural services	3.6	8.2	7.0	1.0	3.2	1.0	24.0
Economic services—							
Mining, manufacturing and construction	1.8	..	..	..	..	0.1	1.9
Electricity and gas	57.7	2.9	10.0	0.1	1.0	..	71.6
Water supply	13.0	0.4	21.3	..	0.3	1.4	36.3
Transport and communications—							
Road systems and ancillary facilities	141.8	58.8	46.0	23.9	20.7	8.4	299.5
Urban transit systems . . . . .	..	..	1.0	..	..	..	1.0
Other economic services	0.7	0.2	..	..	..	..	0.9
Other purposes . . . . .	..	0.4	..	..	..	..	0.4
Total	241.3	79.8	103.9	29.7	34.0	14.4	503.2
Expenditure on existing assets and stocks . . . . .	..	-0.6	-3.0	..	..	..	-3.6
Interest paid	39.8	11.9	31.0	3.8	5.6	4.7	96.8
Net advances to the private sector	0.9	..	..	..	..	..	0.9
Total outlay	365.0	153.9	162.2	46.8	65.2	24.7	817.8
of which—							
Current outlay	122.8	74.7	61.3	17.2	31.1	10.2	317.3
Capital outlay	242.2	79.2	100.9	29.7	34.0	14.4	500.5
RECEIPTS AND FINANCING ITEMS							
Receipts—							
Taxes, fees, fines, etc.—							
Rates on land	181.3	125.2	60.6	32.0	30.4	13.4	442.9
Licences, etc.	4.5	1.2	-3.3	0.3	1.9	0.2	4.7
Total	185.8	126.4	57.3	32.3	32.3	13.6	447.6
Income from public enterprises	39.7	2.2	46.6	0.1	0.6	4.3	93.4
Property income . . . . .	..	-0.3	..	..	..	..	-0.3
Grants from state authorities	42.8	9.1	30.6	4.7	14.5	3.5	105.2
Total receipts	268.2	137.3	134.5	37.0	47.4	21.4	645.9
Financing items—							
Net borrowing—local authority securities	40.6	19.3	32.9	7.5	6.7	4.2	111.2
Advances from state authorities	-0.2	0.5	3.4	-0.4	0.1	1.1	4.5
Reduction in cash and bank balances	6.6	-3.4	-13.1	-0.4	6.5	-0.9	-4.7
Reduction in security holdings	0.1	-9.3	..	..	..	..	-9.2
Other funds available (including errors and omissions)—							
Depreciation allowances	30.1	..	..	..	..	..	30.1
Other	19.6	9.5	4.5	3.2	4.5	-1.2	40.1
Total financing items	96.8	16.6	27.7	9.8	17.8	3.3	172.0
Total funds available	365.0	153.9	162.2	46.8	65.2	24.7	817.8

ALL PUBLIC AUTHORITIES

In the following tables the transactions of the Australian Government, State and Local authorities have been brought together and consolidated to provide details of the receipts and outlay of the public authority sector as a whole.

Summary of receipts and outlay

The receipts and outlay of all public authorities for the five year period ended 1972-73 are set out in the following table.

ALL PUBLIC AUTHORITIES(a): RECEIPTS AND OUTLAY
(*\$ million*)

	1968-69	1969-70	1970-71	1971-72	1972-73
OUTLAY					
Final consumption expenditure	3,360.5	3,672.3	4,234.9	4,829.2	5,523.5
Gross capital formation—					
Increase in stocks	5.1	8.2	67.7	—24.0	—21.8
Expenditure on new fixed assets	2,504.0	2,701.0	2,859.0	3,216.7	3,407.4
Expenditure on existing assets (net)	3.2	13.5	26.8	92.0	43.6
<i>Total gross capital formation</i>	<i>2,512.3</i>	<i>2,722.7</i>	<i>2,953.5</i>	<i>3,284.7</i>	<i>3,429.2</i>
Transfer payments—					
Interest	703.3	767.1	822.7	895.2	990.1
Transfers to persons	1,432.4	1,630.2	1,810.0	2,112.7	2,622.6
Subsidies	223.0	262.2	277.8	392.9	314.1
Transfers overseas	158.7	179.2	184.7	205.6	251.8
Grants for private capital purposes	46.9	52.6	52.2	54.4	68.7
<i>Total transfer payments</i>	<i>2,564.3</i>	<i>2,891.3</i>	<i>3,147.4</i>	<i>3,660.7</i>	<i>4,247.5</i>
Net advances—					
To the private sector	76.2	281.6	63.6	86.7	58.7
To public financial enterprises	26.0	21.9	60.4	60.2	58.5
To overseas	72.7	63.1	61.2	—5.0	22.6
<i>Total net advances</i>	<i>174.9</i>	<i>366.6</i>	<i>185.2</i>	<i>141.8</i>	<i>139.8</i>
<i>Total outlay</i>	<i>8,612.0</i>	<i>9,652.9</i>	<i>10,521.0</i>	<i>11,916.5</i>	<i>13,339.8</i>
<i>of which—</i>					
Current outlay	6,052.8	6,877.6	7,515.3	8,577.4	9,841.9
Capital outlay	2,559.2	2,775.3	3,005.7	3,339.1	3,497.9
RECEIPTS AND FINANCING ITEMS					
Receipts—					
Taxes, fees, fines, etc.	6,746.8	7,722.5	8,602.9	9,802.4	10,744.5
Income from public enterprises	611.7	678.2	676.3	775.2	719.3
Interest, etc., received	183.9	214.7	261.0	277.5	311.1
<i>Total receipts</i>	<i>7,542.4</i>	<i>8,615.4</i>	<i>9,540.2</i>	<i>10,855.1</i>	<i>11,774.9</i>
Financing items—					
Net borrowing—					
Treasury notes	—195.3	32.5	17.9	—9.7	164.6
Australian Government securities	617.9	474.1	260.7	617.2	665.1
Local authority and public corporation securities	370.1	341.2	379.4	490.5	(b)
Other general Government securities	3.4	11.9	32.2	27.5	(b)
<i>Total net borrowing</i>	<i>796.1</i>	<i>859.7</i>	<i>690.2</i>	<i>1,125.4</i>	<i>(b)</i>
Net receipts of private trust funds	89.5	96.4	119.1	150.7	(b)
Reduction in cash and bank balances	—89.3	—64.8	—159.1	—662.0	(b)
Reduction in security holdings—					
Investments of private trust funds	—82.1	—81.4	—101.8	—144.5	(b)
Investments of governmental trust funds and public corporations	—122.4	—365.6	—92.8	52.9	(b)
Other funds available (including errors and omissions)—					
Depreciation allowances	369.1	416.5	428.7	468.9	501.4
Other	108.8	176.9	96.6	69.9	(c)233.7
<i>Total financing items</i>	<i>1,069.7</i>	<i>1,037.7</i>	<i>980.9</i>	<i>1,061.4</i>	<i>1,564.8</i>
<i>Total funds available</i>	<i>8,612.1</i>	<i>9,653.1</i>	<i>10,521.1</i>	<i>11,916.5</i>	<i>13,339.7</i>

(a) Excluding financial enterprises.

(b) Included in Other funds available, Other.

(c) See note (b).

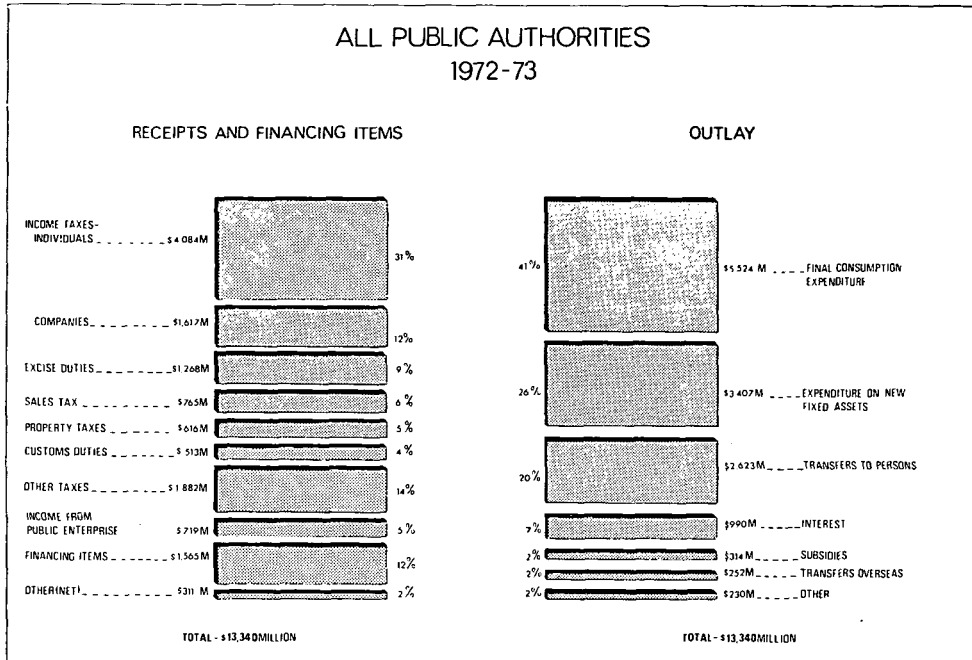


PLATE 41

Main components of outlay

The following tables show final consumption expenditure and expenditure on new fixed assets of all public authorities classified by purpose for the years 1968-69 to 1972-73.

**ALL PUBLIC AUTHORITIES: FINAL CONSUMPTION EXPENDITURE
CLASSIFIED BY PURPOSE**

(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
General public services—					
General administration, n.e.c.	359.0	405.6	469.9	546.9	636.0
External affairs	30.1	38.2	40.2	45.6	50.0
Law, order and public safety	197.6	223.9	260.8	308.6	362.1
Immigration	55.6	61.2	61.6	53.3	43.0
General research	42.4	49.6	57.6	66.1	74.9
Defence	1,017.1	990.0	1,073.6	1,135.9	1,177.3
Education	742.1	878.8	1,061.0	1,267.4	1,518.4
Health	418.0	475.0	578.4	668.7	768.5
Social security and welfare	75.6	87.5	102.0	128.2	156.5
Housing and community amenities—					
Housing	3.2	3.3	1.9	3.4	
Community and regional development	10.3	10.2	13.2	15.6	48.0
Protection of the environment	13.8	15.1	18.0	18.8	
Recreation and related cultural services	122.3	136.8	154.3	176.4	209.0
Economic services—					
General administration, regulation and research	37.9	43.9	52.6	63.6	
Agriculture, forestry, fishing—					
Soil and water resources management	29.1	32.1	38.1	43.7	
Forest resources management	8.2	10.3	11.1	13.0	476.2
Services to agricultural and pastoral industries, and to fisheries	103.4	109.2	124.3	141.0	
Mining, manufacturing and construction	19.5	20.6	22.4	25.7	
Electricity, gas and water supply	1.6	1.8	2.4	3.0	
Transport and communication	55.7	60.6	69.3	81.3	
Other economic services	14.8	16.9	19.5	20.4	
Other purposes	3.3	1.8	2.9	2.5	n.a.
Total	3,360.5	3,672.3	4,234.9	4,829.2	5,523.5

**ALL PUBLIC AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS
CLASSIFIED BY PURPOSE**

(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
General public services—					
General administration	57.8	61.9	70.2	65.9	96.4
External affairs	7.0	3.4	2.3	3.5	15.4
Law, order and public safety	24.9	25.9	28.3	32.1	34.0
Immigration	10.9	10.8	7.4	2.4	1.2
General research	7.2	8.6	13.0	10.0	8.0
Defence . . . . .	..	..	..	..	..
Education	204.5	225.7	253.6	298.1	350.2
Health	80.5	89.1	102.5	117.7	111.6
Social security and welfare	8.1	8.1	12.2	11.3	10.5
Housing and community amenities—					
Housing	74.9	83.3	93.1	85.9	92.6
Community and regional development	16.0	12.7	17.8	23.8	27.6
Protection of the environment	118.2	139.4	165.6	199.8	233.6
Recreation and related cultural services	35.1	38.6	50.2	64.9	66.9
Economic services—					
General administration, regulation and research	5.2	4.2	4.1	6.0	5.0
Agriculture, forestry and fishing—					
Soil and water resources management	55.5	56.7	59.6	60.1	..
Forest resources management	25.6	27.9	29.6	33.7	..
Services to agricultural and pastoral industries, and to fisheries	9.3	11.8	10.9	14.1	133.9
Mining, manufacturing and construction—					
Mining	13.1	14.2	9.3	11.2	..
Manufacturing and construction	7.0	8.6	14.7	18.9	27.3
Electricity and gas	423.3	439.3	419.8	405.7	405.9
Water supply	114.1	132.7	131.6	158.2	181.7
Transport and communication—					
Rail transport	124.2	131.5	136.4	153.1	148.7
Sea transport	70.1	88.3	61.2	91.1	89.7
Road transport	586.8	625.9	673.7	724.6	820.1
Air transport	59.7	66.3	96.7	175.7	57.0
Urban transit(a)	5.4	10.2	9.9	9.3	7.0
Pipelines	28.1	6.1	1.6	2.6	12.4
Other transport services	1.6	1.9	2.9	2.7	2.9
Communications	306.4	350.5	374.4	426.7	459.6
Other economic services	51.0	57.3	56.4	56.7	65.2
Other purposes . . . . .	..	..	..	1.4	..
Total	2,531.4	2,741.0	2,909.2	3,267.1	3,464.4
<i>of which—</i>					
Public financial enterprises	27.3	40.1	50.2	50.4	57.0

(a) Excludes suburban rail transport systems.

Main components of receipts

Taxes and net borrowing constitute the main sources of financing of the activities of the public authorities. Details of the debt of public authorities are given in the next section of this chapter. Taxation, by type of tax, for the years 1968-69 to 1972-73 was as follows.

ALL PUBLIC AUTHORITIES: TAXATION, BY TYPE OF TAX

(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
Income tax—					
Individuals	2,377	2,855	3,175	3,765	4,084
Companies(a)	1,031	1,187	1,428	1,519	1,617
Estate, gift, probate and succession duties	204	217	227	220	237
Customs duties	346	414	466	469	513
Excise duties	902	939	1,053	1,213	1,268
Sales tax	494	569	633	681	765
Primary production taxes	34	33	27	29	35
Payroll tax	206	230	248	396	456
Property taxes	431	462	505	562	616
Liquor taxes	39	41	45	49	53
Taxes on gambling	107	120	132	150	173
Taxes on ownership and operation of motor vehicles	227	245	260	304	348
Stamp duties, n.e.i.	207	259	243	252	355
Other taxes, fees, fines, etc.	141	151	161	195	224
Total	6,747	7,722	8,603	9,802	10,745

(a) Taxes paid by Australian Government public enterprises have been offset. Includes dividend and interest (withholding) taxes.

Level of government

In the following tables details are given for 1971-72 of the receipts and outlay of all public authorities, broken down by level of government in order to show their relative contributions to various expenditure programs, and their roles in financing these programs through taxes and transfers.

**ALL PUBLIC AUTHORITIES(a): RECEIPTS AND OUTLAY
BY LEVEL OF GOVERNMENT, 1971-72**
(\$ million)

	<i>Authorities of the Australian Government</i>	<i>State authorities</i>	<i>Local authorities</i>	<i>All public authorities</i>
OUTLAY				
Expenditure on goods and services—				
General public services—				
General administration, n.e.c.	297.9	188.8	126.1	612.6
External affairs	48.9	0.2	..	49.1
Law, order and public safety	33.8	306.2	0.8	340.7
Immigration	54.4	1.2	..	55.7
General research	76.0	0.1	..	76.1
Defence	1,135.2	0.7	..	1,135.9
Education	88.9	1,476.2	0.4	1,565.5
Health	161.8	595.0	29.6	786.4
Social security and welfare	62.2	76.4	0.9	139.5
Housing and community amenities—				
Housing	5.7	8.0	0.5	89.3
Community and regional development	29.5	7.8	2.1	39.4
Protection of the environment	6.9	160.2	51.4	218.6
Recreation and related cultural services	101.8	57.1	82.3	241.3
Economic services—				
General administration, regulation and research	64.6	5.0	..	69.6
Agriculture, forestry and fishing—				
Soil and water resources management	2.2	101.6	..	103.8
Forest resources management	2.3	44.4	..	46.7
Services to agricultural and pastoral industries and to fisheries	71.0	81.3	2.8	155.1
Mining, manufacturing and construction	12.9	41.0	1.9	55.6
Electricity, gas and water supply	32.2	426.9	107.9	566.9
Transport and communication	713.8	638.2	315.2	1,667.1
Other economic services	36.4	39.4	1.4	77.1
Other purposes	..	3.6	0.3	3.9
Total	3,038.6	4,334.1	723.7	8,096.3
less expenditure by public financial enterprises	-22.3	-28.1	..	-50.4
Total expenditure on goods and services	3,016.3	4,306.0	723.7	8,045.9
of which—				
Final consumption expenditure	2,183.8	2,424.9	220.5	4,829.2
Expenditure on new fixed assets	832.4	1,881.1	503.2	3,216.7
Increase in stocks	-24.5	0.8	-0.3	-24.0
Expenditure on existing assets (net)	-4.9	100.2	-3.3	92.0
Transfer payments—				
Interest	-14.4	812.8	96.8	895.2
Transfers to persons	2,048.4	64.3	..	2,112.7
Subsidies	376.8	16.0	..	392.9
Transfers overseas	205.3	0.3	..	205.6
Grants for private capital purposes	42.0	12.5	..	54.4
Grants to the States—for current purposes	1,756.2	..	..	(b)
—for capital purposes	625.9	..	..	(b)
Grants to local authorities	..	105.2	..	(b)
Total transfer payments	5,040.2	1,011.0	96.8	3,660.7
Net advances to—				
The private sector	-5.2	91.0	0.9	86.7
Public financial enterprises	22.5	37.7	..	60.2
The States	586.7	..	..	(b)
Local authorities	..	4.5	..	(b)
Overseas	-5.0	..	..	-5.0
Total net advances	598.9	133.2	0.9	141.8
Total outlay	8,625.9	5,551.3	817.8	11,916.5
of which—				
Current outlay	6,598.1	3,435.9	317.3	8,490.0
Capital outlay	2,027.8	2,115.4	500.5	3,426.5

(a) Excluding financial enterprises. advances are not shown.

(b) In consolidated figures for all public authorities inter-authority grants and

ALL PUBLIC AUTHORITIES(a): RECEIPTS AND OUTLAY
BY LEVEL OF GOVERNMENT, 1971-72—continued
(\$ million)

	Authorities of the Australian Government	State authorities	Local authorities	All public authorities
RECEIPTS AND FINANCING ITEMS				
Receipts—				
Taxes, fees, fines, etc.—				
Income tax—				
Individuals	3,764.7	..	..	3,764.7
Companies(b)	1,519.5	..	..	1,519.5
Estate, gift, probate and succession duties	75.8	144.6	..	220.4
Customs duties	468.7	..	..	468.7
Excise duties	1,212.9	..	..	1,212.9
Sales tax	680.8	..	..	680.8
Payroll tax	91.1	304.7	..	395.8
Primary production taxes and charges	28.4	..	..	28.4
Property taxes	5.3	114.0	442.9	562.2
Liquor taxes	1.0	48.0	..	49.0
Taxes on gambling . . . . .	..	149.6	..	149.6
Taxes on ownership and operation of motor vehicles	2.0	301.6	..	303.6
Stamp duties, n.e.i.	3.0	249.2	..	252.2
Broadcasting listeners' and television viewers' licences	61.8	..	..	61.8
Fees from regulatory services	6.0	9.0	4.7	19.7
Other taxes, fees, fines, etc.	21.8	91.3	..	113.1
Total taxes, etc.	7,942.8	1,412.0	447.6	9,802.4
Income from public enterprises	303.3	378.0	93.4	775.2
Interest, etc., received	62.0	215.9	-0.3	277.5
Grants from the Australian Government—				
For current purposes . . . . .	..	1,756.2	..	(c)
For capital purposes . . . . .	..	625.9	..	(c)
Grants from State Authorities . . . . .	..	..	105.2	(c)
Total receipts	8,308.6	4,387.9	645.9	10,855.1
Financing items—				
Net borrowing—				
Treasury bills and notes	-9.7	..	..	-9.7
Australian government securities	617.2	..	..	617.2
Local authorities and public corporation securities	-0.1	379.4	111.2	490.5
Other general government securities . . . . .	..	27.5	..	27.5
Total net borrowing	607.4	406.9	111.2	1,125.4
Advances from the Australian Government—				
For loan works purposes . . . . .	..	549.6	..	(c)
Other . . . . .	..	37.1	..	(c)
Advances from State authorities . . . . .	..	..	4.5	(c)
Net receipts of private trust funds	101.8	48.9	..	150.7
Reduction in cash and bank balances	-584.0	-73.3	-4.7	-662.0
Reduction in security holdings—				
Investments of private trust funds	-104.2	-40.2	..	-144.5
Investments of governmental trust funds and public corporations	73.2	-11.1	-9.2	52.9
Other funds available (including errors and omissions)—				
Depreciation allowances	207.4	231.5	30.1	468.9
Other	15.9	14.0	40.1	69.9
Total financing items	317.4	1,163.4	172.0	1,061.4
Total funds available	8,625.9	5,551.3	817.8	11,916.5

(a) Excluding financial enterprises. (b) Taxes paid by Australian Government public enterprises have been offset. Includes dividend and interest (withholding) taxes. (c) In consolidated figures for all public authorities inter-authority grants and advances are not shown.

PUBLIC SECTOR BORROWING

Figures given in this section do not purport to show either 'public debt' or 'net public debt', but are designed to provide details of securities issued on behalf of the Australian Government and the States, together with details of securities issued and other forms of debt outstanding in respect of local authorities and State authorities with independent borrowing powers.

This information cannot be aggregated, without adjustment, to provide a measure of the 'debt' of public authorities for a number of reasons. There are forms of debt not evidenced by the issue of securities, such as Australian Government advances to the States for specific capital purposes—of which the advances made under the Commonwealth-State Housing Agreements would be the most important example. Governments themselves maintain significant holdings of their own securities: for example, the Australian Government, in the National Debt Sinking Fund, the Loan Consolidation and Investment Reserve, and in other Trust Funds, holds large investments in securities issued either

directly by itself or on behalf of the States. Some of the securities issued on behalf of the States and held by the Australian Government represent the proceeds of overseas loans, securities for which were issued directly by the Australian Government—the Australian currency counterpart proceeds of the loans being invested in special loans to finance State works programs. A number of State public corporations and local authorities also maintain significant investments in government securities (including their own securities). Aggregation of the figures for securities on issue which follow would clearly involve a substantial degree of duplication; the sum of securities on issue therefore cannot be regarded as representing 'net public debt'.

Australian Government and States: Loan transactions and Government securities on issue

Under the 1927 Financial Agreement between the Australian Government and the States, the Australian Government accepted responsibility for the securities of State governments then on issue, and was empowered to arrange for all future borrowings on behalf of the Australian Government and the States and to issue Australian Government securities for all money borrowed. The Australian Government is reimbursed by the States for interest, exchange, etc., paid on their behalf, and the securities are redeemed from the National Debt Sinking Fund to which both the Australian Government and State Governments make contributions.

In the tables which follow, details are given of transactions in Australian Government securities issued on account of the Australian Government and the States, together with details of securities on issue, annual interest liability and average rate of interest liability. Amounts relating to overseas loans are shown in the currencies in which the loans are repayable, and in Australian currency equivalent calculated on the basis of the International Monetary Fund par rates of exchange (and the calculated equivalent for Swiss francs) ruling at 30 June in each year shown. All amounts shown are at face value.

For further information relating to securities issued by the Australian Government and the States reference should be made to the Australian Government Budget paper *Government Securities on Issue*.

Net movement in securities on issue

Summary details of the net movement in securities issued for Australian Government purposes and on account of the States during the period 1968–69 to 1972–73, are given in the following group of tables. Also provided is a table (page 604) which sets out the balance of securities on issue at 30 June 1972 and 1973, and the composition of the change in these balances.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE

(\$ million)

	1968–69	1969–70	1970–71	1971–72	1972–73
NEW SECURITIES ISSUED					
Securities repayable in Australian currency—					
Inscribed stock and bonds	633.7	902.1	808.3	814.8	870.4
Special bonds	73.4	134.0	233.1	139.2	109.2
Drought bonds . . . . .	..	1.7	0.4	0.2	0.8
Advance loan subscriptions	7.6	..	8.2	0.4	(c)11.6
Overdue securities . . . . .	..	..	..	..	..
Tax-free stock . . . . .	..	..	..	..	..
Debentures . . . . .	..	..	..	..	..
Stock issued to Government Savings banks					
under special agreements(a)	13.4	16.1	15.0	24.5	68.4
Treasury notes . . . . .	..	46.5	17.9	(c)–9.7	(c)164.6
Treasury bills—					
Internal	174.2	172.1	8.2	(c)–5.3	(c)–8.7
Public . . . . .	..	..	..	..	..
Total	902.3	1,272.5	1,091.1	964.0	1,216.3
Securities repayable in overseas currencies(b)	273.6	111.0	125.0	161.0	116.0
Total new securities issued	1,175.9	1,383.6	1,216.1	1,125.0	1,332.3

For footnotes see next page.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE—*continued*
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73
REDEMPTIONS, REPURCHASES, CANCELLATIONS(d)					
Securities repayable in Australian currency—					
Inscribed stock and bonds	191.8	341.9	612.4	225.4	246.4
Special bonds	46.3	80.6	148.8	83.8	75.7
Drought bonds . . . . .	..	0.7	0.7	0.3	0.2
Advance loan subscriptions . . . . .	..	21.1	..	..	..
Overdue securities	6.3	-2.4	1.2	1.4	-0.2
Tax-free stock . . . . .	..	0.5	..	0.1	0.4
Debentures	2.5	2.6	2.7	2.8	3.0
Stock issued to Government Savings banks under special agreements(a)	3.4	3.7	4.0	4.1	4.1
Treasury notes	68.3	..	..	..	..
Treasury bills—					
Internal . . . . .	..	..	..	..	..
Public	127.0	14.0	..	..	..
Total	445.8	462.8	769.8	317.8	329.5
Securities repayable in overseas currencies(b)	134.3	228.5	159.3	264.4	293.6
Total redemptions, etc.	580.1	691.2	929.1	582.2	623.1

NET MOVEMENT

Securities repayable in Australian currency—					
Inscribed stock and bonds	441.9	560.1	195.9	589.4	624.1
Special bonds	27.1	53.4	84.4	55.4	33.5
Drought bonds . . . . .	..	0.9	-0.3	-0.1	0.6
Advance loan subscriptions	7.6	-21.2	8.2	0.4	11.6
Overdue securities	-6.5	2.4	-1.2	-1.4	0.2
Tax-free stock . . . . .	..	-0.5	..	-0.1	-0.4
Debentures	-2.5	-2.6	-2.7	-2.8	-3.0
Stock issued to Government Savings banks under special agreements(a)	10.0	12.4	11.0	20.4	64.3
Treasury notes	-68.3	46.5	17.9	-9.7	164.6
Treasury bills—					
Internal	174.2	172.1	8.2	-5.3	-8.7
Public	-127.0	-14.0	..	..	..
Total	456.5	809.7	321.3	646.2	886.7
Securities repayable in overseas currencies(b)	139.3	-117.4	-34.3	-103.4	-177.6
Net movement in securities on issue	595.8	692.3	287.0	542.7	709.1

(a) Recorded in Australian Government Loan Fund as State domestic raisings. (b) Australian currency equivalent at rates of exchange ruling at 30 June in each of the years shown. (c) Net issue. (d) Includes conversions from one type of security to another, which affect the net movements of individual loan categories, but do not affect the overall net movement.

The net movement in securities on issue may be reconciled with the Budget deficit, as shown in the following table. For details relating to the financing of the budget deficit see page 566.

RECONCILIATION OF DEFICIT WITH NET MOVEMENT IN SECURITIES ON ISSUE

(\$ million)

(Source: Supplement to the Treasury Information Bulletin, August 1973)

	1968-69	1969-70	1970-71	1971-72	1972-73
Net movement in securities on issue	596	692	287	543	709
Less net increase in securities on issue held by Trust Fund(a)	-268	-512	-88	58	20
	328	180	199	601	729
Adjustment from face value to cash basis . . . . .	..	(b)-18	(b)-21	(b)64	(b)114
	328	163	179	665	843
Less increases in net assets of Australian Government—					
Cash balances . . . . .	..	-19	-157	-567	-175
International Monetary Fund	-5	..	-37	..	..
Other(a)	62	47	26	36	40
Deficit	385	191	10	134	709

(a) Excludes investment of other than Australian Government balances in the Trust Fund. (b) Includes adjustment of Australian currency equivalent of overseas debt, following variations in the rates of exchange. See page 20 of *Government Securities on Issue at 30 June 1970, 1971, 1972 and 1973*.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE, 1972-73

(\$ million)

	Securities on issue at 30 June 1972	Change during 1972-73			Net movement
		New securities issued	Redemptions, repurchases, cancellations (a)	Securities on issue at 30 June 1973	
Securities repayable in Australian currency—					
Australian Government—					
Inscribed stock and bonds	1,165.7	189.6	-122.1	1,233.2	+67.5
Special bonds	252.5	42.4	-32.0	262.9	+10.4
Drought bonds	0.6	0.8	-0.2	1.1	+0.6
Advance loan subscriptions	14.0	(d)11.6	..	25.6	+11.6
Overdue securities	4.0	..	-0.2	3.8	-0.2
Treasury notes	260.1	(d)164.6	..	424.7	+164.6
Treasury bills—Internal	1,034.2	(d)-8.7	..	1,025.5	-8.7
Total	2,731.0	400.2	-154.5	2,976.8	+245.7
States—					
Inscribed stock and bonds	8,887.6	680.8	-124.2	9,444.2	+556.6
Special bonds	620.8	66.8	-43.7	643.9	+23.1
Tax-free stock	15.8	..	-0.4	15.4	-0.4
Stock issued to Government Savings banks under special agreement(b)	297.4	68.4	-4.1	361.7	+64.3
Debentures	39.6	..	-3.0	36.6	-3.0
Overdue securities . . . . .	..	..	+0.4	0.4	+0.4
Total	9,861.2	816.1	-175.1	10,502.2	+641.0
Total securities repayable in Australian currency	12,592.2	1,216.3	-329.5	13,479.0	+886.7
Securities repayable in overseas currencies(c)—					
Australian Government—					
Public loans	457.2	26.8	-27.9	456.2	-1.0
Export-Import Bank loans	36.2	..	-7.7	28.5	-7.7
Defence loans	233.7	57.9	-102.5	189.0	-44.6
International Bank Loans	94.4	..	-18.5	75.9	-18.5
Private loans—					
Aircraft	161.7	31.3	-59.9	133.1	-28.6
Other purposes	93.7	..	+9.8	103.5	+9.8
Total	1,076.9	116.0	-206.7	986.2	-90.6
States	365.6	..	-87.0	278.6	-87.0
Total securities repayable in overseas currencies	1,442.5	116.0	-293.6	1,264.9	-177.6

(a) Including conversions from one type of security to another. (b) i.e. State domestic raisings. (c) Australian currency equivalents at rates of exchange ruling at 30 June 1973. (d) Net issue.

Government securities on issue, annual interest payable, and average rate of interest

The following tables provide details of government securities on issue on account of the Australian Government and the States, repayable in Australian and in overseas currencies, and show, for recent years, the securities on issue maturing in Australia classified by holder. Also shown are details of annual interest payable on securities on issue in Australia and overseas, and the average rate of interest liability.

GOVERNMENT SECURITIES ON ISSUE: AUSTRALIAN GOVERNMENT AND STATES
(\$ million)

	30 June—				
	1969	1970	1971	1972	1973
For Australian Government purposes—					
Repayable in Australian currency—					
Inscribed stock and bonds	1,279.9	1,284.2	1,147.6	1,165.7	1,233.2
Special bonds	201.8	238.3	238.9	252.5	262.9
Drought bonds— . . . . .	..	0.9	0.7	0.6	1.1
Advance loan subscriptions	26.5	5.4	13.6	14.0	25.6
Overdue securities	4.1	6.6	5.4	4.0	3.8
Treasury notes	205.4	252.0	269.8	260.1	424.7
Treasury bills—					
Internal	859.2	1,031.2	1,039.5	1,034.2	1,025.5
Public	14.0	..	..	..	..
<i>Total</i>	<i>2,591.0</i>	<i>2,818.6</i>	<i>2,715.5</i>	<i>2,731.0</i>	<i>2,976.8</i>
Repayable in overseas currencies(a)	1,091.2	1,066.3	1,085.4	1,076.9	986.2
<i>Total Australian Government</i>	<i>3,682.1</i>	<i>3,884.9</i>	<i>3,800.9</i>	<i>3,807.9</i>	<i>3,963.0</i>
On account of States—					
Repayable in Australian currency—					
Inscribed stock and bonds	7,427.9	7,983.8	8,316.3	8,887.6	9,444.2
Special bonds	478.3	495.2	578.9	620.8	643.9
Tax-free stock	16.5	16.0	16.0	15.8	15.4
Stock issued to Government Savings banks under special agreements	253.6	266.0	277.0	297.4	361.7
Debentures	47.7	45.1	42.4	39.6	36.6
Overdue securities . . . . .	..	..	..	..	0.4
<i>Total</i>	<i>8,224.0</i>	<i>8,806.1</i>	<i>9,230.6</i>	<i>9,861.2</i>	<i>10,502.2</i>
Repayable in overseas currencies(a)	606.5	514.0	460.5	365.6	278.6
<i>Total States</i>	<i>8,830.5</i>	<i>9,320.1</i>	<i>9,691.1</i>	<i>10,226.8</i>	<i>10,780.8</i>
<i>of which—</i>					
New South Wales	2,931.3	3,078.7	3,192.9	3,359.4	3,528.6
Victoria	2,130.3	2,254.4	2,347.8	2,488.3	2,632.9
Queensland	1,164.9	1,236.0	1,289.5	1,355.7	1,427.8
South Australia	1,145.8	1,211.3	1,256.9	1,332.0	1,409.7
Western Australia	851.5	896.0	932.6	981.4	1,029.9
Tasmania	606.7	643.8	671.3	709.9	752.0
<i>Total Australian Government and States</i>	<i>12,512.6</i>	<i>13,205.0</i>	<i>13,492.0</i>	<i>14,034.7</i>	<i>14,743.8</i>

(a) Australian currency equivalent.

**GOVERNMENT SECURITIES ON ISSUE^(a): AUSTRALIAN GOVERNMENT AND STATE
MATURING IN AUSTRALIA, BY HOLDER**

(\$ million)

(Source: Reserve Bank of Australia Statistical Bulletin)

Holder	30 June—				
	1969	1970	1971	1972	1973
Reserve Bank of Australia	846	1,190	910	501	611
Trading banks	1,367	1,279	1,412	1,788	2,298
Savings banks	2,285	2,229	2,337	2,380	2,787
Other banking institutions	12	1	1	3	6
Life assurance offices	1,150	1,195	1,325	1,483	1,632
Fire, marine and general insurance offices	126	128	120	117	121
Other private financial institutions—					
Pension and provident funds	192	222	249	290	319
Friendly societies, hospital and medical funds	29	29	31	34	35
Trustee companies	115	113	108	109	109
Pastoral finance companies	37	25	16	14	9
Money market dealers	524	597	694	983	731
Miscellaneous	104	61	74	111	100
Government financial institutions—					
Insurance offices and funds	137	149	154	163	198
Pension and provident funds	195	204	238	271	298
Public trustees	26	24	26	24	25
All other ^(b)	3	3	3	3	2
Public authorities (excluding finance)—					
Australian Government (including Australian semi-government)	2,066	2,577	2,661	2,586	2,556
State Government	57	40	39	42	54
Local government and State semi-government	233	218	191	177	174
Companies (excluding finance)	183	174	118	253	214
Other holders—					
Marketing boards	3	3	3	2	2
Farmers	83	80	76	73	69
Non-profit organisations	48	51	50	50	50
All other	993	1,032	1,107	1,135	1,080
Total	10,815	11,625	11,946	12,592	13,479

^(a) Total stock inscribed, bonds in circulation, amounts paid up on outstanding applications, in transit claims and advance applications, Australian Government Treasury Bills and Treasury Notes, debentures, and Savings Certificates. ^(b) Includes securities held by Commonwealth Development Bank of Australia.

**GOVERNMENT SECURITIES ON ISSUE: AUSTRALIAN GOVERNMENT AND STATES
REPAYABLE IN OVERSEAS CURRENCIES**

		30 June—				
		1969	1970	1971	1972	1973
For Australian Government purposes—						
Sterling	£stg m	80.0	69.9	69.2	68.3	60.9
United States dollars	US\$ m	748.1	687.2	691.9	689.1	617.6
Canadian dollars	Can\$ m	29.7	24.8	12.3	5.2	2.3
Swiss francs	Sw F m	239.7	249.6	249.6	249.6	347.6
Netherlands guilders	f. m	6.2	5.7	65.2	64.8	64.3
Deutsche marks	DM m	791.7	938.7	931.2	1,026.1	1,018.8
European units of account	EuA m	..	..	..	15.0	15.0
Japanese yen	Yen m	..	..	..	..	10,000.0
Total—Australian currency equivalent(a)	\$A m	1,091.2	1,066.3	1,085.4	1,076.9	986.2
On account of States—						
Sterling	£stg m	200.3	164.7	149.7	120.9	105.9
United States dollars	US\$ m	167.3	149.8	126.2	107.4	85.9
Canadian dollars	Can\$ m	12.8	12.2	11.6	10.9	10.2
Swiss francs	Sw F m	50.3	50.3	50.3	50.3	50.3
Netherlands guilders	f. m	28.5	26.3	24.1	21.9	19.7
Total—Australian currency equivalent(a)	\$A m	606.5	514.0	460.5	365.6	278.6
Total—Australian Government and States—Australian currency equivalent(a)	\$A m	1,697.7	1,580.2	1,545.9	1,442.5	1,264.9

(a) Australian currency equivalent at rates of exchange ruling at 30 June in each of the years shown.

**GOVERNMENT SECURITIES ON ISSUE: AUSTRALIAN GOVERNMENT AND STATES
REPAYABLE IN OVERSEAS CURRENCIES, 30 JUNE 1973**

	Currency in which repayable								Total— Australian currency equivalent (a)
	Ster- ling	United States dollars	Canadian dollars	Swiss francs	Nether- lands guilders	Deutsche marks	Japanese yen	European units of account	
	£stg m	US\$ m	Can\$ m	Sw F m	f m	DM m	Yen m	Eu A. m	\$A m
For Australian Government purposes—									
Public loans	60.9	80.1	2.0	239.7	4.3	647.3	10,000.0	15.0	456.2
Export-Import Bank loans—									
Defence equipment . . . . .	..	267.8	..	..	..	..	..	..	189.0
Aircraft . . . . .	..	77.4	..	..	..	..	..	..	54.6
Other . . . . .	..	40.4	..	..	..	..	..	..	28.5
International Bank loans . . . . .	..	78.0	..	..	..	71.6	..	..	75.9
Private loans—									
Aircraft . . . . .	..	74.0	0.3	107.9	..	..	..	..	78.5
Other purposes . . . . .	..	..	..	..	60.0	300.0	..	..	103.5
Total	60.9	617.6	2.3	347.6	64.3	1,018.8	10,000.0	15.0	986.2
On account of States—									
New South Wales	53.4	34.8	3.2	15.8	6.2	..	..	..	129.8
Victoria	12.6	16.7	2.6	12.7	5.0	..	..	..	40.9
Queensland	9.1	13.6	1.3	6.4	2.6	..	..	..	29.3
South Australia	11.4	9.3	1.4	6.8	2.5	..	..	..	30.6
Western Australia	16.9	5.1	1.0	4.9	2.0	..	..	..	36.7
Tasmania	2.7	6.5	0.8	3.7	1.5	..	..	..	11.3
Total	105.9	85.9	10.2	50.3	19.7	..	..	..	278.6
Total Australian Government and States	166.8	703.5	12.5	397.9	84.0	1,018.8	10,000.0	15.0	1,264.9

(a) At rates of exchange ruling at 30 June 1973.

**GOVERNMENT SECURITIES ON ISSUE: AUSTRALIAN GOVERNMENT AND STATES
ANNUAL INTEREST PAYABLE**

		30 June—				
		1969	1970	1971	1972	1973
AMOUNT						
For Australian Government purposes—						
Australian currency	\$A m	91.5	101.5	99.5	99.4	113.0
Sterling	£Stg m	4.2	3.9	3.9	3.8	3.4
United States dollars	US\$ m	39.1	35.9	38.1	40.1	37.0
Canadian dollars	Can\$ m	1.4	1.2	0.6	0.3	0.1
Swiss francs	SwF m	11.4	13.6	13.6	13.6	19.5
Netherlands guilders	f m	0.3	0.3	4.9	4.9	4.9
Deutsche marks	DM m	50.4	61.1	60.6	67.3	66.8
European units of account	EuA m	..	..	..	1.2	1.2
Japanese yen	Yen m	..	..	..	..	690.0
<i>Total Australian Government— Australian currency equivalent(a)</i>	<i>\$A m</i>	<i>150.3</i>	<i>160.6</i>	<i>162.0</i>	<i>164.1</i>	<i>173.7</i>
On account of States—						
Australian currency	\$A m	404.9	449.3	496.1	542.6	578.9
Sterling	£Stg m	8.7	7.5	6.9	5.7	4.9
United States dollars	US\$ m	8.7	7.9	6.8	5.8	4.7
Canadian dollars	Can\$ m	0.7	0.7	0.7	0.6	0.6
Swiss francs	SwF m	2.3	2.3	2.3	2.3	2.3
Netherlands guilders	f m	1.4	1.3	1.2	1.1	1.0
<i>Total States—Australian currency equivalent(a)</i>	<i>\$A m</i>	<i>432.8</i>	<i>473.9</i>	<i>518.3</i>	<i>560.5</i>	<i>592.3</i>
Total Australian Government and States—Australian currency equivalent(a)	\$A m	583.1	634.5	680.2	724.6	766.1

**AVERAGE RATE OF INTEREST LIABILITY
(Per cent)**

For Australian Government purposes—						
Australian currency		3.53	3.60	3.66	3.64	3.80
Sterling		5.29	5.57	5.57	5.59	5.59
United States dollars		5.23	5.22	5.50	5.82	5.98
Canadian dollars		4.72	4.69	5.18	5.51	5.88
Swiss francs		4.77	5.44	5.44	5.44	5.61
Netherlands guilders		5.00	5.00	7.53	7.55	7.57
Deutsche marks		6.37	6.51	6.51	6.56	6.55
European units of account . . . . .		..	..	..	8.00	8.00
Japanese yen . . . . .		..	..	..	..	6.90
<i>Total Australian Government—Australian currency equivalent(a)</i>		<i>4.08</i>	<i>4.13</i>	<i>4.26</i>	<i>4.31</i>	<i>4.38</i>
On account of States—						
Australian currency		4.92	5.10	5.37	5.50	5.51
Sterling		4.35	4.56	4.59	4.68	4.60
United States dollars		5.21	5.29	5.36	5.39	5.46
Canadian dollars		5.75	5.75	5.75	5.75	5.75
Swiss francs		4.50	4.50	4.50	4.50	4.50
Netherlands guilders		5.00	5.00	5.00	5.00	5.00
<i>Total States—Australian currency equivalent(a)</i>		<i>4.90</i>	<i>5.08</i>	<i>5.35</i>	<i>5.48</i>	<i>5.49</i>
Total Australian Government and States— Australian currency equivalent(a)		4.66	4.80	5.04	5.16	5.20

(a) At rates of exchange ruling at 30 June in each of the years shown.

**GOVERNMENT SECURITIES ON ISSUE: AUSTRALIAN GOVERNMENT AND STATES
ANNUAL INTEREST PAYABLE, 30 JUNE 1973**

	Currency in which payable									Total— Aus- tralian currency equiva- lent(a)
	Australian currency	Ster- ling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	Deutsche marks	Euro- pean units of account	Japan- ese yen	
	\$A m	£Stg m	US\$ m	Can\$ m	Sw F m	f m	DM m	Eu A m	Y m	\$A m
For Australian Government purposes	113.0	3.4	37.0	0.1	19.5	4.9	66.8	1.2	690.0	173.7
On account of States—										
New South Wales	187.9	2.6	1.9	0.2	0.7	0.3	..	..	..	194.3
Victoria	143.8	0.7	0.9	0.1	0.6	0.3	..	..	..	146.0
Queensland	74.8	0.4	0.8	0.1	0.3	0.1	..	..	..	76.3
South Australia	76.5	0.4	0.5	0.1	0.3	0.1	..	..	..	77.8
Western Australia	54.9	0.6	0.3	0.1	0.2	0.1	..	..	..	56.3
Tasmania	41.0	0.1	0.4	..	0.2	0.1	..	..	..	41.6
Total States	578.9	4.9	4.7	0.6	2.3	1.0	..	..	..	766.0
Total—										
Currencies in which repayable	691.9	8.3	41.7	0.7	21.8	5.9	66.8	1.2	690.0	..
Australian currency equivalent(a) \$A m	691.9	15.1	29.2	0.5	5.3	1.6	19.4	1.0	2.1	766.0

**AVERAGE RATE OF INTEREST LIABILITY
(Per cent)**

For Australian Government purposes	3.80	5.59	5.98	5.88	5.61	7.57	6.55	8.00	6.90	4.38
On account of States—										
New South Wales	5.53	4.82	5.44	5.75	4.50	5.00	..	..	..	5.51
Victoria	5.55	5.52	5.44	5.75	4.50	5.00	..	..	..	5.55
Queensland	5.35	4.65	5.54	5.75	4.50	5.00	..	..	..	5.34
South Australia	5.34	3.83	5.47	5.75	4.50	5.00	..	..	..	5.52
Western Australia	5.53	3.63	5.37	5.75	4.50	5.00	..	..	..	5.47
Tasmania	5.54	5.06	5.53	5.75	4.50	5.00	..	..	..	5.54
Total States	5.51	4.60	5.46	5.75	4.50	5.00	..	..	..	5.49

(a) At rates of exchange ruling at 30 June 1973.

National Debt Sinking Fund

Securities on issue on behalf of the Australian Government

The National Debt Sinking Fund was established by the *National Debt Sinking Fund Act 1923-1959* and came into operation on 11 August 1923. Particulars of the creation and operation of sinking funds by that Act are included in issues of the Year Book prior to No. 23. The *National Debt Sinking Fund Act 1966* repealed all previous legislation on sinking funds relating to securities on issue on behalf of the Australian Government. Under the Act of 1966 the period of redemption is 25 years from 1 July 1966 for debt outstanding at 30 June 1966 and 25 years for net debt created in subsequent years.

Broadly, the amounts payable to the National Debt Sinking Fund each year are made up of contributions from the Consolidated Revenue Fund of the Australian Government as follows:

- (a) an amount of \$30.94 million each year for a period of 25 years;
- (b) an amount equal to 4 per cent of the amount of net debt created (if any) in any year for a period of 25 years.

In addition, an amount equal to specified receipts by the Australian Government in repayment of loans or advances made out of moneys in the Loan Fund will be paid to the Sinking Fund.

The amounts payable to the Fund in any year from Consolidated Revenue Fund are to be reduced by the following:

- (a) the net income from investments in any year; and
- (b) an amount equal to 4 per cent of the amount of the net reduction of debt in any year.

Particulars of receipts and expenditure of the Australian Government Account for the years 1968-69 to 1972-73 are as follows.

NATIONAL DEBT SINKING FUND: AUSTRALIAN GOVERNMENT ACCOUNT
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Receipts—					
From Consolidated Revenue	32,832	26,351	21,061	17,812	22,012
Loans and advances repaid	14,909	84,069	272,483	157,376	84,333
War Service Homes money repaid	(a)	(a)	(a)	(a)	(a)
Interest on investments	5,502	3,786	2,968	1,359	995
Total receipts	53,243	114,206	296,512	176,547	107,340
Expenditure (net cost)—					
Securities repurchased and redeemed in—					
Australia	33,340	113,083	293,179	149,373	87,577
London	693	21,386	1,230	1,737	14,303
New York(b)	28,253	28,319	22,941	26,207	17,854
Canada	28	83	90	93	89
Netherlands	119	119	119	124	124
Germany . . . . .	..	..	..	..	707
Total expenditure	62,434	162,990	317,558	177,534	120,655
Balance at 30 June	131,396	82,612	61,565	60,578	47,263
Face value of securities repurchased and redeemed in—					
Australia	33,473	114,333	294,367	149,513	87,747
London	876	21,678	1,436	1,887	13,649
New York(b)	29,624	29,514	23,771	26,438	16,340
Canada	32	108	101	108	94
Netherlands	118	118	119	123	128
Germany . . . . .	..	..	..	..	792
Total face value	64,123	165,751	319,794	178,069	118,750

(a) In the years 1968-69 to 1972-73 principal repayments were credited to Consolidated Revenue Fund. (b) Includes instalment repayments of loans from International Bank for Reconstruction and Development; 1968-69—face value, \$21.8m, net cost, \$21.1m; 1969-70—face value, \$17.6m, net cost, \$17.4m; 1970-71—face value, \$13.2m, net cost, \$13.1m; 1971-72—face value, \$12.9m, net cost, \$13.1m; 1972-73—face value, \$6.1m, net cost, \$6.8m.

Securities on issue on behalf of States

A sinking fund for the redemption of the securities on issue on behalf of States was established under the Financial Agreement. Particulars of the transactions of the National Debt Sinking Fund (States' Account) for each State during the year 1972-73 and for all States during the years 1968-69 to 1972-73 are shown in the following tables.

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1972-73
(**\$'000**)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Total</i>
Receipts—							
Contributions under Financial Agreement—							
Commonwealth	9,197	6,809	3,636	3,689	2,715	1,934	27,979
States	34,713	25,493	13,142	13,434	11,000	6,008	103,792
Interest from States on cancelled securities	62	25	15	16	18	7	144
Special contributions by States	63	25	13	..	6	..	107
Interest on investments, etc.	65	63	9	19	14	3	174
Total receipts	44,100	32,416	16,815	17,158	13,754	7,952	132,195
Expenditure (net cost)—							
Securities repurchased and redeemed in—							
Australia	31,645	20,231	10,540	14,937	10,907	5,871	94,131
London	7,258	11,171	3,242	1,432	2,417	419	25,939
New York	5,361	3,630	2,104	1,975	1,279	1,124	15,474
Canada	145	117	58	62	45	33	459
Netherlands	181	145	74	73	57	42	571
Total expenditure	44,589	35,293	16,018	18,479	14,705	7,491	136,575
Balance at 30 June 1971							
Face value of securities repurchased and redeemed in—							
Australia	31,684	20,264	10,540	14,949	10,907	5,871	94,215
London(a)	8,730	12,584	3,636	1,692	2,864	502	30,008
New York(a)	3,065	2,065	1,202	1,126	727	643	8,829
Canada(a)	88	72	36	38	28	21	283
Netherlands(c)	114	92	47	46	36	27	362
Total face value	43,681	35,077	15,461	17,851	14,562	7,064	133,697

(a) Converted in accordance with the Financial Agreement at the equivalent of the mint par of exchange prevailing on 1 July 1927.

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT
(\\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Receipts—					
Contributions under Financial Agreement—					
Commonwealth	21,619	23,271	24,550	26,323	27,979
States	78,807	83,484	90,162	96,572	103,792
Interest from States on cancelled securities	126	173	162	139	144
Special contributions by States	138	138	123	107	107
Interest on investments, etc.	-220	828	70	140	174
Total receipts	100,469	107,895	115,067	123,280	132,195
Expenditure (net cost)—					
Securities repurchased and redeemed in—					
Australia	45,120	81,284	87,693	94,374	94,131
London	12,333	40,526	10,824	11,574	25,939
New York	11,126	10,584	11,841	14,999	15,474
Canada	145	433	462	486	459
Netherlands	546	545	547	571	571
Total expenditure	69,270	133,372	111,367	122,005	136,575
Balance at 30 June	33,639	8,162	11,862	13,137	8,757
Face value of securities repurchased and redeemed in—					
Australia	45,127	81,367	87,705	94,392	94,215
London(a)	13,543	40,565	11,438	11,496	30,008
New York(a)	12,318	5,582	5,995	7,728	8,829
Canada(a)	167	266	245	271	283
Netherlands(a)	540	362	362	362	362
Total face value	71,695	128,142	105,745	114,250	133,697

(a) Converted in accordance with the Financial Agreement at the equivalent of the mint par of exchange prevailing on 1 July 1927.

State and Local Authorities' Indebtedness

The statistics of indebtedness of State and local authorities set out in the two following tables have been compiled from returns supplied by all local authorities (including New South Wales County Councils), and by autonomous and semi-autonomous State authorities which have independent borrowing powers, i.e. the power to borrow other than by having Australian Government securities issued on their behalf—and which have in fact exercised these powers in borrowing from the public under the provisions of the Loan Council's 'Gentleman's Agreement.'

The State authorities covered by these statistics include the authorities responsible for providing the following services.

New South Wales. Water Supply, Sewerage and Drainage, Electricity and Gas Supply, Fire Brigades, Banking, Housing, Harbours, Grain Elevators, Roads and Bridges, Marketing, Industry Assistance, and Miscellaneous.

Victoria. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Transport, Electricity and Gas Supply, Roads and Bridges, Fire Brigades, Marketing (Buying and Selling), Industry Assistance, Grain Elevators, and Housing.

Queensland. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Transport, Electricity Supply, Fire Brigades, University, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), and Industry Assistance.

South Australia. Irrigation and Drainage, Transport, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Assistance, Banking, Housing, University, and Miscellaneous.

Western Australia. Water Supply and Sewerage, Harbours, Transport, Electricity Supply, Fire Brigades, Hospitals, Marketing (Agency), Housing, University, and Miscellaneous.

Tasmania. Harbours, Electricity Supply, Fire Brigades, Transport, Housing, Industry Assistance, and Water Supply.

In the tables which follow, debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalised and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalised), trade creditors, amounts held in trust, and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised from the public to repay indebtedness to the Government, and interest capitalised. Loans raised and redeemed within the year, increases in overdrafts, and loans raised for conversion or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

STATE AND LOCAL AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION AND DEBT
(\$ million)

	1966-67	1967-68	1968-69	1969-70	1970-71
STATE AUTHORITIES					
New money loan raisings—					
From government	149.1	171.3	187.5	200.1	191.7
From public	221.4	246.5	293.6	275.2	319.3
Total loan raisings	370.5	417.8	481.0	475.3	511.0
Funds provided for redemption—					
Government loans	26.2	29.0	28.4	31.1	36.5
Loans due to public	43.1	63.3	66.0	67.5	74.6
Total funds for redemption	69.3	92.3	94.4	98.6	111.1
Accumulated sinking fund balance	178.6	196.5	214.8	233.3	240.7
Debt—					
Due to government	2,299.0	2,441.2	2,600.7	2,769.8	2,930.8
Due to banks (net overdraft)	7.5	7.0	9.4	9.0	7.4
Due to public(a)	2,677.0	2,878.5	3,130.2	3,357.9	3,614.0
Total debt	4,983.5	5,326.7	5,740.3	6,136.8	6,552.2
<i>of which—</i>					
Maturing overseas(a)	11.8	5.8	1.6	..	1.4
LOCAL AUTHORITIES					
New money loan raisings—					
From government	5.5	5.6	8.6	8.2	6.6
From public	157.6	178.4	184.3	179.5	191.0
Total loan raisings	162.8	184.0	192.9	187.7	197.6
Funds provided for redemption—					
Government loans	3.9	3.7	3.5	3.4	3.4
Loans due to public	66.6	71.9	79.0	85.4	89.0
Total funds for redemption	70.5	75.6	82.5	88.8	92.4
Accumulated sinking fund balance	73.8	81.3	91.5	97.7	107.9
Debt—					
Due to government	58.3	60.2	65.0	69.9	72.9
Due to banks (net overdraft)	9.2	4.3	4.8	3.8	3.3
Due to public(a)	1,215.4	1,328.0	1,443.2	1,545.2	1,654.3
Total debt	1,282.9	1,392.5	1,513.0	1,618.8	1,730.5
<i>of which—</i>					
Maturing overseas(a)	4.3	3.6	3.2	2.8	2.5

(a) Includes debt payable in London and New York, converted to Australian currency equivalent at the I.M.F. rates of exchange applying as at 30 June in each of the years shown.

**STATE AND LOCAL AUTHORITIES: NEW MONEY LOAN RAISINGS, REDEMPTION
DEBT AND INTEREST PAYABLE, 1970-71**
(\$ million)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
STATE AUTHORITIES							
New money loan raisings—							
From government	34.8	52.4	3.2	34.5	35.9	30.8	191.7
From public	84.8	142.8	42.9	20.2	18.7	9.9	319.3
Total loan raisings	119.5	195.2	46.1	54.8	54.6	40.7	511.0
Funds provided for redemption—							
Government loans	11.0	8.9	3.6	7.2	2.2	3.6	36.5
Loans due to public	21.1	35.2	12.0	1.2	2.6	2.5	74.6
Total funds for redemption	32.1	44.1	15.6	8.4	4.8	6.1	111.1
Accumulated sinking fund balance	132.7	70.6	22.7	0.1	8.0	6.5	240.7
Debt—							
Due to government	637.3	862.6	84.0	504.3	446.5	396.1	2,930.8
Due to banks (net overdraft)	2.6	0.7	..	0.1	3.9	..	7.4
Due to public creditor (a)	872.3	1,872.7	410.5	219.6	152.4	86.5	3,614.0
Total debt(a)	1,512.1	2,736.1	494.5	724.1	602.8	482.6	6,552.2
of which—							
Maturing overseas(a) . . . . .	..	1.4	..	..	..	..	1.4
Annual interest payable(a)	81.6	146.6	28.3	37.6	32.8	24.7	351.6
LOCAL AUTHORITIES							
New money loan raisings—							
From government	0.2	0.5	4.9	0.9	..	..	6.6
From public	83.2	26.1	48.7	10.3	15.7	6.9	191.0
Total loan raisings	83.5	26.6	53.6	11.3	15.7	7.0	197.6
Funds provided for redemption—							
Government loans	0.6	0.2	1.8	0.7	..	..	3.4
Loans due to public	39.7	16.3	20.5	2.9	6.4	3.4	89.0
Total funds for redemption	40.3	16.5	22.3	3.5	6.4	3.4	92.4
Accumulated sinking fund balance	50.2	16.4	38.8	0.3	..	2.2	107.9
Debt—							
Due to government	6.2	8.0	50.8	6.9	..	0.9	72.9
Due to banks (net overdraft)	1.8	1.4	..	0.1	..	..	3.3
Due to public creditor (a)	763.4	237.3	434.1	62.1	82.6	74.8	1,654.3
Total debt(a)	771.4	246.7	484.9	69.1	82.6	75.8	1,730.5
of which—							
Maturing overseas(a) . . . . .	..	..	2.5	..	..	..	2.5
Annual interest payable(a)	43.5	14.4	28.2	4.0	5.0	4.4	99.5

(a) Includes debt or interest payable in London and New York, converted to Australian currency equivalent at the I.M.F. rates of exchange applying as at 30 June 1971.

Aggregate debt of State and local authorities

The following table brings together figures of Australian Government securities on issue on account of the States, debt outstanding of State authorities which have borrowed directly, and debt outstanding of local authorities, to provide an indication of the level of indebtedness of the public authorities in each State. It should be noted, however, that for the kinds of reasons outlined on page 621, this aggregation of figures for securities on issue and debt outstanding cannot be taken as a measure of the 'net public debt' of the State and local authorities. In order to measure this latter magnitude it would be necessary to identify and deduct the substantial holdings of Australian Government, State and local securities which represent the investment by these authorities of reserve funds and trust and other funds which they administer. In addition, it would be necessary to include the indebtedness of the State authorities to the Australian Government in respect of advances made for specific capital purposes (such as those made under the Commonwealth-State Housing Agreements). For some purposes too it might be necessary to identify and deduct any loans outstanding from governments to other sectors.

STATE AND LOCAL AUTHORITIES' INDEBTEDNESS, 30 JUNE 1967 TO 1971

<i>State authorities</i>				
	<i>Australian Government securities issued on account of States</i>	<i>State authorities' own borrowings(a)</i>	<i>Local authorities(a)</i>	<i>Total</i>
AMOUNT OUTSTANDING				
(\$ million)(b)				
30 June 1971—				
New South Wales	3,192.9	874.8	765.2	4,832.9
Victoria	2,347.8	1,873.5	238.7	4,460.0
Queensland	1,289.5	410.5	434.1	2,134.1
South Australia	1,256.9	219.8	62.2	1,538.9
Western Australia	932.6	156.3	82.6	1,171.5
Tasmania	671.3	86.5	74.9	832.7
All States, 30 June 1971	9,691.1	3,621.4	1,657.6	14,970.1
1970	9,320.1	3,365.2	1,548.9	14,234.3
1969	8,830.5	3,139.6	1,447.9	13,418.0
1968	8,316.5	2,885.5	1,332.3	12,534.3
1967	7,934.1	2,684.5	1,224.6	11,843.2
PER HEAD OF POPULATION				
(\$)(b)				
30 June 1971—				
New South Wales	693.9	190.1	166.3	1,050.4
Victoria	670.3	534.9	68.2	1,273.4
Queensland	705.8	224.7	237.6	1,168.0
South Australia	1,070.9	187.3	53.0	1,311.2
Western Australia	905.0	151.7	80.2	1,136.8
Tasmania	1,719.5	221.6	191.9	2,132.9
All States, 30 June 1971	773.7	289.1	132.3	1,195.2
1970	763.8	275.8	126.9	1,165.6
1969	738.5	262.6	121.1	1,122.2
1968	708.5	245.8	113.5	1,067.9
1967	687.3	232.5	106.1	1,025.9

(a) Amounts due to central government have been excluded. (b) Debts repayable overseas have been converted to the Australian currency equivalent at IMF rates of exchange applying at 30 June in each of the years shown.

ROADS AND BRIDGES: WATER SUPPLY AND SEWERAGE: HARBOURS

As indicated elsewhere in this chapter, further details of the activities of public authorities engaged in particular fields of activity such as defence, transport and communication, health and welfare, education, electricity supply, banking, etc., may be found in other chapters of this Year Book which deal specifically with those subjects. However, it has been convenient for the time being to include in this chapter an account of the activities of authorities engaged in the fields of construction and maintenance of roads and bridges, provision of water supply and sewerage services and provision of harbour facilities. Particular attention is given to the activities of State authorities engaged in these fields.

Roads and Bridges

Primary responsibility for the construction and maintenance of roads and bridges rests with State and local authorities. In each State there exists a central road authority or a government department which undertakes construction, reconstruction and maintenance of declared 'main' and 'developmental' roads, and which administers the distribution of funds to local authorities and supervises and co-ordinates road construction throughout the State. Provision of roads and bridges has always

been one of the principal functions of local authorities, and these authorities still account for a significant proportion of construction and maintenance activity, as is shown by figures given earlier in this chapter. However the relative importance of the contribution of local authorities has tended to decline in recent years, reflecting in part a reassessment of priorities in allocations of road finance. The Australian Government is concerned with construction and maintenance of roads and bridges in the Northern Territory and Australian Capital Territory and roads of access to Australian Government property in the various States; but the Australian Government's most significant contribution to government activity in this field is in the provision of specific purpose capital grants to the States under the Commonwealth Aid Roads Acts, which constituted about 30 per cent of the total outlay by State and local authorities on roads and bridges in 1972-73.

In what follows, figures are provided of expenditure on road transport by all public authorities, Australian Government grants for road purposes, and an account is given of the activities of the principal State authorities concerned with roads and bridges in each State. For details of mileages of roads open to traffic, classified according to class of road and road surface, see Chapter 12, Transport, and Communication.

All public authorities

The figures given in the following table provide an approximate measure of the aggregate net expenditure on roads and bridges by Australian Government, State and local authorities in recent years. Expenditure on roads by those authorities whose primary activity is directed towards functions other than roads, e.g. electricity, forestry, housing, etc., is not included. The figures cover expenditure on the construction, reconstruction and maintenance of roads and bridges, and direct administration. Debt charges are not normally classified by function and are therefore excluded. Because a satisfactory and consistent distinction between new construction and maintenance cannot be made with existing data, all expenditure on roads and bridges is treated as capital expenditure.

ALL PUBLIC AUTHORITIES: GROSS FIXED CAPITAL EXPENDITURE ROAD TRANSPORT (\$ million)

Year	Australian Government authorities	State and local authorities					Tas.	All public authorities
		N.S.W.	Vic.	Qld	S.A.	W.A.		
1968-69	19	191	161	97	50	51	18	587
1969-70	19	196	170	109	57	55	19	626
1970-71	21	226	170	113	59	63	21	674
1971-72	19	246	174	127	66	71	22	725
1972-73(a)	24	289	184	146	72	80	25	820

(a) Estimated.

Australian Government grants

The following table shows the allocations to the States under the several Commonwealth Aid Roads Acts for road construction, maintenance, repair and other works connected with transport for each of the years 1968-69 to 1972-73. After 1 July 1959, when the *Commonwealth Aid Roads Act* 1959 came into operation, the Australian Government made separate provision for expenditure on strategic roads and the promotion of road safety practices.

ROAD CONSTRUCTION, MAINTENANCE, ETC: GRANTS UNDER THE COMMONWEALTH AID ROADS ACTS, STATES (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1968-69	47,319	33,113	31,098	19,433	30,537	8,500	170,000
1969-70	57,060	38,160	34,740	21,000	32,940	9,100	193,000
1970-71	64,980	43,460	39,560	23,500	36,270	10,230	218,000
1971-72	74,500	49,820	45,360	25,500	39,250	10,820	245,250
1972-73	85,590	57,240	52,110	28,000	43,910	12,150	279,000

New South Wales

Main roads administration is organised as a separate department under the control of a Commissioner. The activities of the Department of Main Roads include works on main, secondary, developmental and tourist roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed and maintained from government funds. The Department of Main Roads co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system.

During 1971-72 changes were made in the method of financing road construction. The New South Wales Government decided that as from 1 January 1972, the full cost of works carried out by the Department of Main Roads was to be met from the Department's own funds. Prior to this date, local councils, in the County of Cumberland were required to meet half the cost of secondary roads construction and a proportion of the cost of tourist roads; and in country districts, councils were required to meet a proportion of the cost of road and bridge construction and maintenance on roads other than State highways. The financial burden was therefore removed from councils in respect of works under the control of the Department of Main Roads. Councils continued to perform work on those roads for which they were responsible in the past.

The funds of the Department of Main Roads are derived principally from motor vehicle taxation, charges on heavy commercial goods vehicles under the Road Maintenance (Contribution) Act, 1958, grants under Commonwealth Aid Roads Acts (see page 636), other grants from the State or Australian Governments, and proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the Main Roads Act, 1924. The State Government also makes repayable advances for Main Roads Department works, and since 1963 the Commissioner for Main Roads has had the power (with the approval of the Governor on the recommendation of the Treasurer) to borrow moneys. The figures shown below represent the aggregate revenue and expenditure of the following funds: the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Aid Roads Fund.

**DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES: REVENUE
AND EXPENDITURE
(\$'000)**

	1968-69	1969-70	1970-71	1971-72	1972-73
REVENUE(a)					
Motor vehicle taxation, registration and licence fees	49,636	52,519	55,237	73,637	92,731
Commonwealth Aid Roads Acts	29,814	40,207	47,129	55,617	65,924
State and Federal grants . . . . .	..	..	2,400	655	1,886
Contributions by other departments and bodies	350	1,194	1,155	776	651
Local authorities' contributions—					
Under section 11 of Mains Roads Act	7,538	9,820	11,407	5,890	311
Other	262	30	275	645	425
Sydney-Newcastle Expressway Toll	1,530	2,096	2,271	2,564	2,653
Other	859	776	1,047	1,020	1,336
Total	89,989	106,642	120,920	140,804	165,915
EXPENDITURE(b)					
Roads and bridges—					
Construction	67,950	79,999	92,154	98,055	118,987
Maintenance	19,719	22,114	22,661	26,364	29,996
Administration	5,379	6,133	7,373	9,413	9,949
Interest, exchange, etc., on debt	2,541	3,126	3,802	4,331	4,489
Other(c)	2,229	3,143	4,037	4,290	4,359
Total	97,819	114,514	130,027	142,455	167,780

(a) Excludes repayable advances by the State Government and private loans (\$12,900,000 in 1968-69, \$10,600,000 in 1969-70, \$11,250,000 in 1970-71, \$8,800,000 in 1971-72 and \$8,575,000 in 1972-73.) and transfers from Sydney Harbour Bridge Account for Expressway construction (\$900,000 in 1968-69, \$224,000 in 1969-70, \$70,000 in 1970-71, \$57,000 in 1971-72, and \$334,000 in 1972-73.) Expenditure from these amounts is fully reflected in expenditure. (b) Excludes debt repemtion (\$812,000 in 1968-69, \$984,000 in 1969-70, \$1,365,000 in 1970-71, \$1,674,000 in 1971-72, and \$2,327,000 in 1972-73.) and repayment of government advances (\$200,000 in 1968-69 and later years. This payment was not made in 1972-73.) (c) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because the depreciation charge for them is reflected each year in 'Roads and bridges'.

Toll facilities operated by the Department of Main Roads include the Sydney Harbour Bridge and completed sections of the Sydney-Newcastle Expressway.

The Sydney Harbour Bridge was opened for traffic on 19 March 1932, and has a main span of 503 metres with clearance for shipping of 52 metres. The deck, 49 metres wide, carries eight road traffic lanes, two railway tracks, one cycleway and one footway. During 1972-73, approximately 50 million private road vehicles, 25.6 million rail passengers and 11 million bus passengers crossed the bridge. Income from tolls during 1972-73 amounted to \$4,999,000, including road tolls of \$4,691,000, rail passenger tolls \$282,000 and bus passenger tolls \$25,000.

The sections of the Sydney-Newcastle Expressway now open to traffic extend approximately 10 kilometres between Berowra and the Hawkesbury River and approximately 16 kilometres north of the river to Calga. The Department is currently constructing a bridge on the Hawkesbury River to link these two sections of the Expressway. Total cost of the project to 30 June 1973 was \$32 million. Toll collections during the year ended 30 June 1973 amounted to \$2,652,560.

Victoria

With the object of improving the main roads of the State, the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine which roads should be declared in the various classifications; to supervise the construction, reconstruction and maintenance of these roads; to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance; and to recommend deviations in existing roads or the construction of new roads in order to facilitate communications or to improve the conditions of traffic.

The funds of the Country Roads Board are derived principally from motor registration fees, two-thirds of additional registration fees (charged on initial registration or transfer), a proportion of drivers' licence fees, payments by the Australian Government under the Commonwealth Aid Roads Acts, roads charges under the Commercial Goods Vehicles Act, repayments by municipalities and, since 1965, a share of the addition to registration fees paid to the Roads (Special Projects) Fund and a grant under the Public Works Loan Application Act. In addition, loans have been authorised from time to time under the Country Roads Acts for permanent works on main and developmental roads, State highways, tourists' roads and forest roads, while the State Government has provided, free of repayment, loan moneys for restoration of flood and bush fire damage. Finance for the elimination of level crossings and for improved approaches, signs, lighting and other work to reduce danger at level crossings is derived mainly from the one third of additional registration fees paid into the Level Crossings Fund, maintained by the Board.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS (\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Motor Car Act—registration and licence fees (less cost of collection)	28,889	30,868	32,895	34,296	35,428
Municipalities' payments	1,931	1,904	2,018	2,190	2,182
Commonwealth Aid Roads Acts	32,723	38,160	41,425	45,300	49,785
Roads (Special Projects) Fund	3,055	3,533	7,761	6,721	5,675
Road charges, Commercial Goods Vehicles Act	7,842	8,555	8,903	9,136	9,745
Loans from State Government	3,389	900	388	400	400
Grants from State Government	784	849	783	983	1,333
Other	520	498	543	713	703
Total	79,132	85,267	94,715	99,739	105,251

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS—*continued*
(S'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
PAYMENTS					
Construction and maintenance of roads and bridges—					
State highways	18,349	22,078	20,465	22,113	18,044
Main roads	16,940	17,783	19,373	20,372	20,660
Freeways	11,682	13,439	18,869	18,345	23,857
Tourist roads	2,793	3,112	2,665	2,284	1,749
Forest roads	678	798	902	858	840
Unclassified roads	14,248	16,356	17,217	16,846	17,513
Other	86	112	69	120	130
Plant purchase	1,583	1,818	1,956	2,060	1,765
Buildings, workshops, etc.	611	618	599	331	641
Interest, debt redemption, etc.	2,306	2,443	2,504	2,584	2,612
Statutory payment to —					
Tourist Fund	536	578	617	658	686
Transport Regulation Board	435	471	513	534	548
Administration and other	7,205	7,509	10,089	12,579	14,442
Total	77,452	87,115	95,838	99,685	103,487

The Melbourne and Metropolitan Board of Works bears the responsibility for carrying-out planning scheme proposals relating to metropolitan highways and bridges, and is now carrying out a program of urgent highway works throughout the metropolitan area of Melbourne. The extension of the South-Eastern Freeway from Burnley to Tooronga, the Tullamarine Freeway to serve the new Tullamarine airport and the St. Kilda Road Underpass connecting Alexandra Avenue and Sturt Street have been completed. The Eastern Freeway from Collingwood to Bulleen is now under construction. Widening of High Street, St. Kilda, is in progress. Expenditure on road projects up to 30 June 1973 was \$92.4 million. Of this amount, \$31.9 million was financed from the proceeds of the Board's Metropolitan Improvement Rate, \$51.2 million was contributed by the Treasurer of Victoria from the Roads (Special Projects) Fund and \$9.3 million from the Commonwealth Aid Roads Account during 1972-73.

The Lower Yarra Crossing Authority was incorporated in October 1965 as a company limited by guarantee and given powers under the *Lower Yarra Crossing Authority Act 1965* to construct, operate and maintain a toll crossing over the lower reaches of the River Yarra.

Queensland

The Department of Main Roads was constituted in February 1951 with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main developmental, and secondary roads; and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases construction is financed by the State Government by means of Treasury loans. Other roads may be built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collections, fees, etc, under the Transport Acts, contributions under the Commonwealth Aid Roads Acts, and loans, grants and advances from the State Government. The total receipts and payments during each of the years 1968-69 to 1972-73 are shown in the following table.

DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS
(**\$'000**)

	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Motor vehicle registration, Transport Acts collections, fees, etc.	22,048	23,454	25,000	26,886	29,303
Loans from State Government	2,330	400	50	500	1,750
Grants from State Government	746	550	378	183	313
Roads (Contribution to Maintenance) Act	4,297	4,754	4,689	4,862	3,527
Commonwealth Aid Roads and Works Act	35,296	40,021	47,285	55,298	58,444
Maintenance repayments—local authorities	1,471	1,515	1,116	1,137	1,302
Hire, rent, sales of plant, etc.	5,853	6,465	6,074	6,517	7,413
Other	649	601	773	750	961
Total	72,689	77,761	85,366	96,132	103,013
PAYMENTS					
Permanent road works and surveys(a)	46,799	53,035	56,802	62,942	69,557
Maintenance of roads	8,929	10,150	10,911	13,189	13,574
Plant, machinery, buildings, etc. (including plant maintenance)	4,060	4,496	3,348	4,797	5,130
Loans—					
Interest	276	236	59	- 108	- 216
Redemption	934	925	895	847	798
Administration and other	10,194	11,697	12,870	14,947	17,617
Total	71,193	80,538	84,883	96,614	106,459

(a) Includes grants to local authorities for road purposes.

South Australia

The Highways Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Transport, to undertake the construction, maintenance and protection of the principal roads of the State, allocate grants to councils for roadworks and supervise the expenditure of these grants, and assist the Councils to purchase road-making plant and to defray the cost of road-works. In addition, the Commissioner advises Councils on technical questions concerning the construction, maintenance or repair of roads. Funds of the Department are derived mainly from the Highways Fund, into which are paid the proceeds from motor vehicle registration and drivers' licences (less cost of collection) appropriations from loan funds, repayments of advances made to Councils, and contributions by the Municipal Tramways Trust, and from contributions under the Commonwealth Aid Roads Acts.

The following table shows particulars of receipts and payments, during the years 1968-69 to 1972-73, of funds controlled by the Highways Department.

HIGHWAYS DEPARTMENT, SOUTH AUSTRALIA: RECEIPTS AND PAYMENTS
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Motor vehicle registration, licences, fees	12,536	13,250	14,212	18,000	18,828
Commonwealth Aid Roads Acts	19,433	21,000	23,500	25,500	28,000
Other(a)	3,799	5,161	4,022	4,088	5,157
Total	35,767	39,412	41,733	47,589	51,985
PAYMENTS					
Construction and reconstruction of roads and bridges(b)	23,837	30,200	27,056	31,699	32,629
Maintenance(a)(b)	8,211	10,271	11,575	13,303	11,197
Recoups to Consolidated Revenue Fund— interest, debt redemption and exchange	522	544	556	580	619
Advances to local and semi-government authorities	1,253	402	251	305	262
Repayments to Revenue under Section 31(a), Highways Act . . . . .	..	..	..	..	..
Stores, plant, machinery, suspense accounts, etc.(c)	-105	581	859	3,816	3,967
General Administration . . . . .	..	..	..	..	2,638
Total	33,718	41,998	40,298	49,703	51,312

(a) Includes reimbursement works for Australian Government. (b) Includes administration expenses. (c) Represents gross repayments less recoveries by charges to works on account of depreciation and materials used.

Western Australia

Work connected with road construction and maintenance and associated projects in Western Australia is undertaken by the State Government, through the Main Roads Department, and by local government authorities throughout the State. The Department operates under the *Main Roads Act, 1930-1972*, and is administered by a Commissioner of Main Roads responsible to the Minister for Works. The Act makes provision for the construction and maintenance of public roads in the categories of main roads, controlled-access roads and developmental roads. An additional category, that of important secondary roads, is used by the Department in determining its works program. Within its own district each local government authority is responsible for the provision and upkeep of roads other than those provided by the Main Roads Department. In addition, the local authority is required by the Main Roads Act to maintain any developmental road situated in its district.

The funds of the Main Roads Department are derived principally from allocations made under the *Commonwealth Aid Roads Act 1969* under which Western Australia has been allotted grants totalling \$200,400,000 for the five-year period commencing 1 July 1969. In the seven-year period to 30 June 1974 grants totalling a maximum of \$9,500,000 are to be received from the Australian Government for the improvement of roads used for the transport of beef cattle in the Kimberley District. Other sources of income include a portion of vehicle licence fees collected by local government authorities and the Commissioner of Police, overload permit fees and an allocation from drivers' licence fees. Further moneys for expenditure on road maintenance are available under the *Road Maintenance (Contribution) Act, 1965-1972* administered by the Commissioner of Transport. Since 1 July 1969 the Main Roads Department, through changes to legislation, has administered funds not previously included in receipts and payments of the Department. Receipts and payments for the years 1968-69 to 1972-73 are shown in the following table.

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA: RECEIPTS AND PAYMENTS
 (\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Motor vehicle registration, licence fees, etc.—					
Department of Motor Vehicles	4,435	7,958	8,881	9,351	10,056
Local Authorities . . . . .	..	3,367	4,440	4,493	4,155
Commonwealth Aid Roads Acts	25,148	32,940	36,270	39,250	43,910
Commonwealth Aid Roads Acts —Matching grants	2,040	..	..	..	..
State Grants (Beef Cattle Roads) Act	1,451	1,168	1,000	1,600	1,900
Road Maintenance (Contribution) Act	3,086	3,557	4,131	3,879	3,429
Recoups from other authorities	2,488	2,433	2,416	2,293	2,672
Other	299	307	420	870	853
Total	38,946	51,730	57,558	61,737	66,976
PAYMENTS					
Construction and reconstruction of roads and bridges(a)	27,456	28,921	30,536	41,775	45,065
Maintenance of roads and bridges(a)	4,452	4,820	5,815	6,612	6,902
Grants to local authorities . . . . .	..	10,997	13,315	12,435	13,295
Transfer to State Consolidated Revenue	258	267	281	280	291
Plant, machinery, etc.	516	950	1,617	2,785	1,504
Other(a)	3,760	3,809	5,053	2,805	2,101
Total	36,442	49,764	56,616	66,693	69,158

(a) Includes administration and expenditure on hire and maintenance of road construction plant, etc., and on purchase of materials.

Tasmania

Under the *Roads and Jetties Act 1935*, the control of the construction and maintenance of roads and certain road-making plant was vested in the Minister for Lands and Works. Works authorised by the Minister in respect of roads classified as State highways, main roads, secondary roads and tourist and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid Commonwealth Aid Roads grants, motor vehicle taxes and public vehicle fees. Loan funds are also authorised by Parliament for road purposes. Municipal councils contribute towards the cost of maintaining main and secondary roads in the classified system. The maintenance of roads not included in the classified system is the responsibility of municipal councils, but they are assisted with grants made available under the Commonwealth Aid Roads Act for expenditure on Rural Roads.

The table following shows particulars of receipts and payments for the years 1968-69 to 1972-73 (municipal council receipts from rates and loans for road purposes are excluded).

ROAD FUNDS; TASMANIA: RECEIPTS AND PAYMENTS
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Motor vehicle taxation, registration, licences, fees, fines, etc.	4,587	4,827	5,033	5,659	5,912
Commonwealth Aid Roads Acts	8,500	9,100	10,230	10,820	12,150
State Loan Fund	739	1,100	1,020	930	540
Contributions by Local Authorities	17	18	17	17	19
Other	102	128	93	307	277
Total	13,945	15,173	16,393	17,733	18,897
PAYMENTS					
Construction and reconstruction of roads and bridges	10,180	11,322	12,320	12,769	13,404
Maintenance of roads and bridges	3,263	3,662	4,297	4,475	4,686
Planning and research . . . . .	..	120	185	189	186
Total	13,442	15,105	16,802	17,433	18,276

Water supply, sewerage and drainage

The information in this section relates primarily to the metropolitan areas and provincial cities and towns. For information on water supply and irrigation in rural areas *see* Chapter 23, Water Resources.

New South Wales

The two largest domestic water supply and sewerage systems are controlled by statutory boards each consisting of a president and a vice-president appointed by the State Government, and five members elected by local councils. These are (a) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e. in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, Shellharbour and Kiama, and (b) the Hunter District Water Board serving the Newcastle-Maitland-Cessnock areas. At Broken Hill and Cobar similar boards include representatives of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal or shire councils.

Metropolitan and Hunter District water supply. The storage reservoirs of the *metropolitan water supply system* with a combined available capacity of 2,623,603 megalitres, drain catchment areas of 16,213 square kilometres (including Warragamba, 9,013 square kilometres, Shoalhaven, 5,670 square kilometres, Upper Nepean, 899 square kilometres and Woronora, 85 square kilometres). The development of a water supply system on the Warragamba River was completed with the official opening of the Warragamba Dam in October 1960. This dam, constructed in concrete, has a storage capacity of 2,057,128 megalitres. Its safe net draught is estimated to be 1,246 megalitres a day. At 30 June 1973 there were 191 service reservoirs in use with a combined capacity of 3,814 megalitres. Fluoridation of the metropolitan water supply commenced in April 1968.

The following table shows, for the Metropolitan system, the number of properties, the estimated population supplied, and other details.

METROPOLITAN WATER SUPPLY(a), NEW SOUTH WALES: SERVICES

Year	Improved properties for which water mains available	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of mains	Number of meters
					Per property	Per head of estimated population		
		'000	mega-litres	mega-litres	litres	litres	kilo-metres	
1968-69	775,548	2,885	1,373	501,647	1,768	482	13,734	550,017
1969-70	795,918	2,968	1,296	472,871	1,628	441	14,170	583,818
1970-71	817,655	3,042	1,332	485,795	1,628	441	14,441	608,851
1971-72	839,984	3,040	1,341	490,241	1,596	441	14,798	634,211
1972-73	862,353	3,063	1,418	518,100	1,646	464	15,163	655,156

(a) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

The water supply of the *Hunter District system* is drawn principally from three sources; the Chichester Reservoir, with a storage capacity of about 17,011 megalitres and draining a catchment of 197 square kilometres, the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens, and the Grahamstown Water Supply Scheme which is still being developed. Another source of supply is provided by the Nelson Bay-Anna Bay Scheme. Service reservoirs and tanks distributed throughout the water supply district have a total storage capacity of 623 megalitres.

Metropolitan and Hunter District sewerage and drainage system. The metropolitan sewerage and drainage system serving Sydney and suburbs comprises 4 major sewerage systems and 7 minor systems, consisting of 6 outfalls discharging directly into the Pacific Ocean and 5 treatment works. There are also 8 centres outside the metropolitan area of which 5 (Camden, Campbelltown, St Mary's, Richmond and Warragamba township) are served by local treatment works and 3 (Bellambi, Port Kembla and Wollongong) discharge directly into the Pacific Ocean. Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30 June 1973 were 312 kilometres long.

The following table gives details of sewerage services and stormwater drains of the Metropolitan system.

METROPOLITAN SEWERAGE AND DRAINAGE(a)
NEW SOUTH WALES: SERVICES

30 June—	Improved properties for which sewerage available	Estimated population served	Length of sewers	Length of stormwater channels
		'000	kilometres	kilometres
1969	602,312	2,235	10,467	299
1970	637,258	2,374	10,950	306
1971	659,035	2,477	11,441	307
1972	696,342	2,531	11,965	309
1973	725,838	2,600	12,511	312

(a) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires.

The main sewerage system of the *Hunter District* serves the City of Newcastle and discharges into the Pacific Ocean at Burwood Beach. There are also local treatment works at Maitland, Cessnock and some of the outlying districts.

Metropolitan system finances. The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board for each of the services of water supply, sewerage and drainage during 1972-73, and for the three services combined for the years 1968-69 to 1972-73.

**METROPOLITAN(a) WATER SUPPLY, SEWERAGE AND DRAINAGE
NEW SOUTH WALES: FINANCES
(\$'000)**

Year	<i>Expenditure</i>					Total	Surplus
	Capital debt at 30 June	Revenue	Working expenses (b)	Interest and exchange	Debt redemption		
1972-73—							
Water	363,839	66,295	39,320	19,597	7,377	66,294	2
Sewerage	390,478	66,350	36,356	22,044	7,946	66,346	5
Drainage	15,613	3,947	2,862	881	201	3,944	3
Total—							
1972-73	769,930	136,592	78,538	42,522	15,524	136,584	10
1971-72	715,978	119,851	68,083	37,736	14,017	119,836	14
1970-71	654,420	97,694	52,289	33,259	12,135	97,683	11
1969-70	627,475	88,343	47,112	30,213	11,004	88,328	15
1968-69	590,869	80,206	41,865	28,216	10,105	80,185	21

(a) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities, and parts of Colo and Wollondilly Shires. (b) Includes provision for renewals, long service leave, etc.

Local government country water supply and sewerage systems. At 31 December 1971, country water supply services were conducted or under construction by 49 municipalities, 97 shires and 6 county councils, and country sewerage services by 52 municipalities and 75 shires. The capital indebtedness of these schemes was \$151,078,000 at 31 December 1971. Debt of the municipalities amounted to \$62,509,000, shires to \$71,394,000 and county councils to \$17,176,000. Government advances amounting to \$673,000 are included in these figures. Aggregate income and expenditure amounted to \$31,448,000 and \$24,019,000 respectively, in 1971.

Other country water supply and sewerage systems. The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31 December 1972 was \$4,746,000. In 1972, income (excluding subsidies, State Government \$252,000 and mining companies \$724,000) amounted to \$972,000 and expenditure (excluding debt redemption \$363,000) amounted to \$1,568,000. The Cobar Water Board was constituted in February 1964. At 31 December 1972 its capital indebtedness was \$2,151,000. The following country water supply systems—South-West Tablelands, Junee, and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Electricity Commission of New South Wales, and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was \$15,059,000 at 31 December 1972. The Mulwala Water Supply and Sewerage Service was constructed as an urgent war-time work for the Australian Government, and the Bethungra Water Supply System is administered by the Department of Public Works in conjunction with the Junee supply.

Victoria

Melbourne and Metropolitan Board of Works. The Board consists of a Chairman and 53 Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The principal functions of the Board are: to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; to control and manage the rivers, creeks and watercourses within the metropolitan area; and to carry out the functions of a permanent planning authority.

Metropolitan water supply. There are 6 storage reservoirs serving the metropolitan area—Yan Yean, 32,882 megalitres; Maroondah, 28,590 megalitres; O'Shannassy, 4,228 megalitres; Silvan, 40,247 megalitres; Upper Yarra, 206,392 megalitres; and Greenvale, 27,495 megalitres; total 339,834 megalitres. Service reservoirs number 57, with a total capacity of 1,859 megalitres. The following table shows particulars of Melbourne metropolitan water supply services for the years 1968-69 to 1972-73.

MELBOURNE WATER SUPPLY: SERVICES

Year	Number of houses supplied	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of aqueducts, etc., mains and reticulation	Number of meters
					Per house	Per head of estimated population		
		'000	megalitres	megalitres	litres	litres	kilometres	
1968-69	658,944	2,227	788.3	287,713	1,196	354.1	11,320	595,560
1969-70	676,111	2,285	835.1	304,874	1,237	365.5	11,549	612,074
1970-71	698,024	2,359	911.0	332,506	1,305	386.0	11,808	630,020
1971-72	724,071	2,447	905.6	331,465	1,250	370.1	12,012	644,904
1972-73	751,159	2,520	863.8	315,208	1,150	(a)342.8	12,268	663,994

(a) Restrictions on use of water imposed due to drought conditions.

Metropolitan sewerage and drainage. Particulars of sewerage and drainage services for 1968-69 to 1972-73 are shown below.

MELBOURNE SEWERAGE AND DRAINAGE: SERVICES

Year	Number of houses for which sewers are provided	Estimated population for which sewers are provided	Average daily pumping	Total sewage pumped for the year	Average daily pumping		Length of sewers, etc.	Length of main drains
					Per house	Per head of estimated population		
		'000	megalitres	megalitres	litres	litres	kilometres	kilometres
1968-69	528,983	1,741	439.6	160,477	831.0	252.3	7,895	402
1969-70	543,870	1,786	497.8	181,716	915.1	278.7	8,164	410
1970-71	559,000	1,827	506.9	185,003	906.9	277.3	8,390	418
1971-72	575,221	1,885	526.4	192,750	915.1	279.1	8,501	426
1972-73	591,673	1,939	555.5	202,792	939.7	287.3	8,731	438

The metropolitan sewerage system consists of the main system (serving an area of 49,993 hectares) and 7 subsidiary systems—the Braeside system (serving an area of 2,772 hectares), the Kew system (serving an area of 46 hectares), the Maribyrnong system (serving an area of 74 hectares), the Lower Plenty system (serving an area of 882 hectares), the Heatherton system (serving an area of 829 hectares) the Altona system (serving an area of 149 hectares) and the Chelsea system (serving an area of 271 hectares). The Board of Works Farm, 10,849 hectares in extent and situated about 39 kilometres south-west of Melbourne beyond the township Werribee, serves to purify and dispose of approximately ninety-five per cent of the sewerage flow of the metropolis before its discharge into Port Phillip Bay. Construction of a major new sewerage system—the South-Eastern Sewerage System—which will serve areas to the east and south-east of the City is currently under way.

Melbourne and Metropolitan Board of Works' finances. The following table provides for the year 1972-73 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works, and of the combined services for the years 1968-69 to 1972-73. The financial operations of the Board as the Authority responsible for metropolitan highways and bridges are referred to on page 639.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES

(\$'000)

Service, etc.	Capital cost of works and buildings at 30 June(a)	Expenditure					Surplus (+) or deficit (-)	
		Revenue	Working expenses	Works	Interest and exchange	Debt redemption		Total
Water	283,657	30,960	11,570	1,400	14,567	..	27,537	+3,422
Sewerage	393,716	37,069	11,233	2,600	20,453	..	34,286	+2,783
Drainage	45,215	6,311	2,606	1,000	1,957	..	5,563	+ 749
General(b)	33,145	..	2,967	..	..	5,499	8,466	-8,466
Total 1972-73	755,732	74,340	28,376	5,000	36,978	5,499	75,853	-1,513
1971-72	646,054	67,757	26,047	5,000	30,700	4,517	66,264	+1,493
1970-71	562,980	57,364	22,542	3,550	26,700	3,854	56,645	+ 719
1969-70	505,957	49,097	18,685	3,600	23,668	3,443	49,396	- 299
1968-69	449,333	41,981	15,427	2,334	21,184	3,239	42,183	- 202

(a) Total loan indebtedness—1972-73, \$648,254,000 (b) Statutory and general expenditure not distributed over services.

State Rivers and Water Supply Commission. Water supply and conservation throughout Victoria, (except for the area controlled by the Melbourne and Metropolitan Board of Works) is under the jurisdiction of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission, and its various works are described in the chapter, Water Resources.

Queensland

The *Brisbane City Council* operates the water supply and sewerage systems of the City of Brisbane and also supplies, in bulk, the whole of the water used by the City of Ipswich and a portion of that used by the City of Redcliffe, Albert Shire Council and Moreton Shire Council. Redcliffe supplements its supply from that of the Pine Rivers Shire Council, while Albert and Moreton also draw on their own reservoirs. The total number of service reservoirs for Brisbane Water Supply is 31, with a capacity of 513.3 megalitres. The Somerset reservoir is a dual purpose project with a designed total holding capacity of 909,218 megalitres, 306,861 megalitres to be for water storage and 602,357 megalitres for flood mitigation. The following table is a summary of operations of the complete Brisbane City Council system (Brisbane, Ipswich, and portion of Redcliffe and Albert Shires) for the years 1968-69 to 1972-73.

BRISBANE WATER SUPPLY(a): SERVICES

Year	Services connected	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of trunk and reticulation mains
					Per service	Per head of estimated population	
1968-69	213,445	772,356	388.2	141,702	litres	litres	kilometres
1969-70	218,798	799,276	372.3	135,874	1,818	502.8	4,561
1970-71	223,911	807,168	388.7	141,933	1,700	465.5	4,783
1971-72	235,343	828,088	417.3	152,762	1,737	481.9	4,928
1972-73	n.a.	n.a.	461.0	168,178	1,773	504.2	5,277
					n.a.	n.a.	n.a.

(a) Includes Ipswich and a portion of Redcliffe City and Albert and Moreton Shires.

The sewerage treatment works of the *Brisbane sewerage scheme* is situated at Luggage Point at the entrance to the Brisbane River. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1968-69 to 1972-73.

BRISBANE SEWERAGE: SERVICES

Year	Premises connected	Estimated population served	Total sewage pumped for the year	Length
				of main, branch, reticulation, etc., sewers
			megalitres	kilometres
1968-69 . . .	122,690	453,953	39,183	2,935
1969-70 . . .	143,245	530,007	42,338	3,296
1970-71 . . .	152,803	565,371	42,429	3,658
1971-72 . . .	167,585	596,603	40,642	4,033
1972-73 . . .	182,184	648,575	41,397	4,369

Brisbane City Council water supply and sewerage systems—finances. The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1968-69 to 1972-73.

BRISBANE WATER SUPPLY AND SEWERAGE: FINANCES
(\$'000)

Service and year	Gross capital cost to 30 June	Revenue	Expenditure		Total(a)	Surplus (+) or deficit (-)
			Working expenses	Interest, redemption etc., charges		
Water supply—						
1968-69 . . .	69,719	10,214	4,057	2,809	9,334	+ 880
1969-70 . . .	77,255	10,697	4,134	2,961	10,145	+ 552
1970-71 . . .	85,157	11,769	4,687	3,432	11,816	- 47
1971-72 . . .	95,135	13,604	5,436	4,052	10,748	+ 2,856
1972-73 . . .	n.a.	14,539	5,857	4,445	14,182	+ 357
Sewerage—						
1968-69 . . .	72,123	8,404	1,250	2,443	7,696	+ 708
1969-70 . . .	74,489	8,848	1,481	2,677	7,881	+ 967
1970-71 . . .	77,802	10,524	1,961	3,277	9,261	+ 1,263
1971-72 . . .	77,876	11,171	2,531	3,620	6,979	+ 4,192
1972-73 . . .	n.a.	13,346	2,851	4,108	13,052	+ 294

(a) Total, including other expenditure.

Other areas. At 30 June 1973, of the 130 local authorities in addition to the City of Brisbane, 127 had water supply schemes and 86 operated sewerage systems. The receipts (other than loan and loan subsidy) of water undertakings controlled by these authorities amounted to \$17,036,000 in 1972-73. Expenditure amounted to \$17,044,000, including \$6,605,000 for debt charges. In addition, expenditure from loans and loan subsidy amounted to \$12,806,000. Finances of sewerage undertakings are incorporated with cleansing and sanitary services and are not available separately.

South Australia

The water supply and sewerage systems in this State were constructed mainly, and are maintained by the Engineering and Water Supply Department, under the control of the Minister of Works. Works controlled by the Department are the Adelaide, Barossa, Beetaloo, Bundaleer, Moorook, Tod River, Warren, Yorke Peninsula, and other country water districts systems, the Morgan-Whyalla water supply system, the metropolitan and country sewerage systems, the Metropolitan Flood Waters Scheme, and works on the River Murray constructed under the River Murray Waters Agreement. Several water supply schemes on the Murray River are administered by the Department of Lands in conjunction with irrigation works, and supplies to Woomera and Leigh Creek coalfield are controlled by the operating authorities.

Adelaide waterworks. At 30 June 1973 the Adelaide waterworks supplied districts covering 740 square kilometres of the metropolis and extending to near country areas. The capacity of the principal reservoirs was 188,000 megalitres and there were 6,650 kilometres of metropolitan mains. The Mannum-Adelaide pipeline conveys water from the River Murray. Water is delivered to a terminal storage near Adelaide and thence to the metropolitan distribution system or alternatively it can be delivered into metropolitan reservoirs on the River Torrens. The pipeline also supplies various country areas along and extending from its route. A second River Murray pipeline extending from Murray Bridge to the River Onkaparinga is under construction.

ADELAIDE WATERWORKS: FINANCES
(\$'000)

Year	Invested capital at 30 June (a)	Revenue	Expenditure			Surplus (+) or deficit (-)
			Working expenses (b)	Interest	Total	
1968-69	114,121	10,793	5,552	4,919	10,471	+ 322
1969-70	123,817	12,722	6,236	5,399	11,636	+ 1,086
1970-71	133,509	14,513	6,787	5,887	12,674	+ 1,839
1971-72	143,880	15,772	7,130	6,414	13,544	+ 2,229
1972-73	145,156	18,417	8,606	6,750	15,356	+ 3,061

(a) After deduction of depreciation. (b) Includes debt redemption.

Adelaide metropolitan sewerage system. The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg, Port Adelaide, Christies Beach, and Salisbury-Elizabeth areas of 548 square kilometres in all, includes treatment works at Glenelg, Port Adelaide, Bolivar, and Christies Beach. Financial and other particulars for 1968-69 to 1972-73 are shown hereunder.

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY

Year	Length of sewers km	Number of con- nections	Invested capital at 30 June(a)	Expenditure				Surplus
				Revenue	Working expenses (b)	Interest	Total	
			\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1968-69	3,529	234,818	78,141	7,601	3,463	3,073	6,536	1,065
1969-70	3,664	244,239	84,080	8,644	3,716	3,601	7,317	1,327
1970-71	3,779	254,816	90,169	10,477	4,270	3,910	8,180	2,297
1971-72	3,888	265,755	96,431	11,977	4,909	4,500	9,409	2,568
1972-73	4,060	276,652	92,642	12,964	5,400	4,946	10,346	2,618

(a) After deduction of depreciation. (b) Includes debt redemption.

Country sewerage schemes. Sewerage schemes are operating at Port Lincoln, Naracoorte, Mount Gambier, Millicent, Lobethal, Gumeracha, Nangwarry, Mount Burr, Myponga, Mannum, Stirling, Whyalla and Angaston. At Port Lincoln and Mount Gambier the sewers discharge to ocean outfalls, and treatment works are used on the other systems. There are 604 kilometres of sewers and 21,360 connections in the country systems. Sewerage schemes for Port Pirie, Murray Bridge and Gawler are under construction and operating in part.

Country water supply. Water districts systems at 30 June 1973 comprised an area of 6,779,000 hectares. Supply came from major reservoirs having a capacity of 92,918 megalitres, from minor reservoirs, from the River Murray, and from underground sources. Apart from local supplies, water from the River Murray is distributed over wide areas through the Mannum-Adelaide, Morgan-Whyalla, Swan Reach-Stockwell and Tailm Bend-Keith pipelines and branches of these pipelines. The principal areas of underground supplies are in the south-east of the State, where water from the Murray Basin can be had at moderate depths or from lakes, and from sand beds on Eyre Peninsula.

In the year 1972-73 supplies made to Mount Gambier, Naracoorte and other towns in the south-east amounted to 7,385 megalitres, and the Uley-Wanilla, Lincoln and Polda Basins contributed 3,827 megalitres to the Tod River Water District.

Morgan-Whyalla water supply scheme. This scheme, which has 359 kilometres of main via Port Augusta and 283 kilometres of main via the Spencer Gulf undersea crossing, was officially opened on 31 March 1944, the capital invested to 30 June 1973 being \$30,990,000. Apart from supplying Whyalla, the mains have been used to allow expansion of reservoir supplies in the northern agricultural area of the State, and to meet new demands caused by industrial growth at Whyalla, Port Pirie and Port Augusta. During 1972-73 water used from the scheme amounted to 28,952 megalitres.

Western Australia

The principal water supply systems of Western Australia are under the control of two State authorities, the Metropolitan Water Supply, Sewerage and Drainage Board and the Public Works Department. The area which constitutes the territory administered by the Board encompasses approximately 4,144 square kilometres and extends from Perth southward to Rockingham and Serpentine, northward to Mullaloo, and eastward to Sawyers Valley and Kalamunda. The Public Works Department controls the Goldfields and Agricultural Water Supply and the Great Southern Towns Water Supply as well as 125 local water supplies (*see also* Chapter 23, Water Resources). Four independent town schemes are controlled by local Water Boards in country areas, and individual water supplies serve railways, timber mill towns, isolated mines, pastoral properties, stock routes, and agricultural areas, mainly from dams, tanks, wells and bores.

Metropolitan water supply, sewerage and drainage. The sources of the metropolitan water supply are Serpentine Reservoir and Serpentine Pipehead Reservoir, Canning Reservoir, Churchman Brook Reservoir, Victoria Reservoir, Wungong Brook Diversion Weir and North Dandalup Pipehead Dam. The largest of these sources are the Serpentine Reservoir and the Canning Reservoir, which have a capacity of 177,298 megalitres and 93,422 megalitres respectively. Water from storages on the Darling Range is conveyed to service reservoirs to serve the City of Perth and the metropolitan area. A limited quantity of water is drawn from Mundaring Weir to serve sections of Greenmount, and to meet the peak demands of summer consumption supplies are supplemented from artesian bores, which can provide a daily maximum of 95 megalitres. The amount of bore water used is rarely more than 10 per cent of the metropolitan consumption and is usually considerably less.

The following table shows particulars of the *metropolitan water supply services* for 1968-69 to 1972-73.

METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA: SERVICES

Year	Number of services (a)	Average daily consumption megalitres	Total consumption for year megalitres	Average daily	Length of mains kilometres	Number of meters
				consumption per service (b) litres		
1968-69 . . .	185,340	348.7	127,359	1,950	5,060	161,859
1969-70 . . .	193,359	396.4	144,657	2,082	5,338	171,346
1970-71 . . .	200,597	405.5	148,080	2,055	5,641	178,857
1971-72 . . .	210,465	424.6	155,017	2,068	5,934	187,313
1972-73 . . .	223,393	429.5	156,757	1,922	6,171	196,220

(a) Figures relate to 30 June. (b) Calculated from averages for the year.

Some particulars of the *metropolitan sewerage and main drainage services* for 1968-69 to 1972-73 are shown in the following table.

**METROPOLITAN SEWERAGE AND MAIN DRAINAGE
WESTERN AUSTRALIA: SERVICES**

Year	Services	Length of sewers	Length of main drains
		kilometres	kilometres
1968-69	74,018	1,498	203
1969-70	76,638	1,590	227
1970-71	81,940	1,828	253
1971-72	87,318	1,991	253
1972-73	93,402	2,158	260

Metropolitan Water Supply, Sewerage and Drainage Board—finances. The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Board.

**METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE
WESTERN AUSTRALIA: FINANCES
(\$'000)**

Service and year	Capital cost to 30 June	Revenue	Expenditure		Total	Surplus
			Working expenses	Interest and depreciation		
Water supply—						
1968-69	74,078	7,162	2,322	3,510	5,832	1,331
1969-70	82,482	7,915	2,808	3,949	6,757	1,159
1970-71	92,284	8,371	3,389	4,460	7,850	521
1971-72	101,509	10,956	3,953	4,931	8,884	2,073
1972-73	114,971	11,482	4,712	5,581	10,293	1,189
Sewerage—						
1968-69	34,027	3,809	1,771	1,637	3,408	401
1969-70	40,821	4,162	1,983	1,867	3,850	313
1970-71	48,500	4,508	2,255	2,214	4,470	38
1971-72	58,975	6,097	2,693	2,573	5,267	831
1972-73	76,506	6,586	3,258	3,117	6,375	211
Main drainage—						
1968-69	8,657	872	327	375	702	170
1969-70	9,838	951	353	407	760	192
1970-71	10,699	1,144	448	467	915	228
1971-72	11,259	1,357	492	503	995	362
1972-73	11,694	1,444	598	541	1,139	306

Country water supplies. Information relating to country water supplies is included in Chapter 23, Water Resources.

Tasmania

Waterworks. In Tasmania, water supply was once the exclusive responsibility of the city and municipal councils. In recent years, two semi-government authorities have been set up to operate bulk supply schemes for distribution by local government authorities in the Hobart and Launceston areas, and directly to some industrial consumers.

The over-all control of water supply in the greater Hobart area, comprising the municipalities of Hobart, Clarence, Glenorchy, and Kingborough, is vested in the Metropolitan Water Board, but the municipalities retain primary responsibility for reticulation. The Board has constructed a large pumping station at Bryn Estyn, near New Norfolk, which supplies bulk water from the Derwent River to the metropolitan area and has a pipeline capacity of 91 megalitres a day. In addition, the Board controls the Southern Regional Water Supply Scheme with a pipeline capacity of 3.1 megalitres a day which supplies water to Hobart's eastern shore and nearby towns.

The other semi-government authority, the Rivers and Water Supply Commission, operates two schemes in the Launceston region. The North Esk Regional Water Supply Scheme supplies water to the municipalities of St Leonards, George Town, Lilydale and part of Westbury, and also supplies water directly to some industrial users situated near the Tamar River. The second scheme in this region, the West Tamar Water Supply, provides water to the Municipality of Westbury. In addition to the above schemes, the Rivers and Water Supply Commission also operates an industrial water supply scheme on the east coast of Tasmania near Triabunna.

At 30 June 1973 water was supplied to approximately 106,400 properties throughout the State.

Sewerage. At 30 June 1973 the number of tenements connected to sewerage services was about 86,000. Approximately 65 per cent of sewerage discharge is subject to treatment.

Northern Territory

Information relating to water supply in the Northern Territory may be found in Chapter 23, Water Resources.

Australian Capital Territory

Information relating to water supply and sewerage in the Australian Capital Territory may be found in Chapter 30, Territories of Australia.

Harbour boards and trusts

The number and net tonnage of vessels which entered the major ports in each State during the years 1971-72 and 1972-73 are shown in Chapter 12, Transport and Communication (*see* page 359). Particulars of overseas and interstate cargo discharged and shipped are shown on pages 359-63 of the same chapter.

New South Wales

The *Maritime Services Board of New South Wales* exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft and the examination and issue of certificates to officers. It is responsible for the provision of pilotage services, lights, beacons, buoys and other port facilities, imposes and collects rates and charges on goods and vessels, and is vested with the general control and management of the navigable waters and ports within the State. At the ports of Sydney, Newcastle and Botany Bay the Board is also responsible for the provision of adequate wharfage and channels and carries out all construction, maintenance and dredging work. Since 1 February 1936 the State enactments on port charges, including the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act and the Sydney Harbour Trust Act, have been administered by the Maritime Services Board. The total revenue collections by the Maritime Services Board amounted to \$38,353,000 in 1972-73. This figure includes the revenue for the ports of Sydney, Newcastle and Botany Bay.

Financial details relating to these three ports are shown in the following table.

MARITIME SERVICES BOARD FUND: FINANCES OF THE PORTS OF SYDNEY
NEWCASTLE AND BOTANY BAY
(\$'000)

Year	Revenue			Total	Expenditure(a)			Surplus(+) or deficit(-)
	Wharfage and transhipment rates	Tonnage rates and berthing charges	Other charges		Administration and maintenance	Interest, debt redemption, exchange, etc.	Total	
1968-69	13,580	2,085	7,294	22,959	12,150	10,716	22,866	+ 93
1969-70	14,854	2,271	7,875	25,000	12,816	12,120	24,937	+ 64
1970-71	15,105	2,150	13,042	30,297	15,885	14,642	30,527	-229
1971-72	17,160	2,296	10,915	30,371	17,257	13,059	30,316	+ 55
1972-73	16,602	2,047	10,552	29,201	18,134	11,969	30,103	-902

(a) Excludes capital expenditure but includes transfers to the Renewals Fund Reserve Account (\$5,800,000 in 1968-69, \$6,760,000 in 1969-70, \$9,140,000 in 1970-71, \$6,600,000 in 1971-72 and \$5,000,000 in 1972-73).

Port of Sydney. The wharves are situated close to the business centre of the city, about 6 or 8 kilometres from the Heads. At 30 June 1973 there were 5 dolphin berths, 1,082 metres long, and 76 effective commercial cargo berths, with a total length of 11,214 metres. controlled by the Board. Accommodation for harbour craft amounts to 684 metres, while the length of other berths, including oil and private wharves, totals 3,594 metres. Depth of water at wharves is up to 13 metres. Special facilities for the storage and handling of products such as wheat, wool, coal, etc., are provided. Docking facilities are available for large vessels at the Captain Cook Graving Dock. Container facilities became available in March 1969 with the opening of the eastern section of the Balmain container terminals to cellular container vessels.

Port of Newcastle. Shipping at Newcastle is concerned primarily with the coal, iron and steel and other heavy industries located in the district. However, facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

Botany Bay. The port is primarily a discharging centre for the oil refinery at Kurnell, near Sydney, and one jetty with a tanker berth each side of the jetty is available as well as three tanker offshore moorings with submarine pipelines.

Port Kembla is the port of the southern coalfields and for the major industrial areas in and about Wollongong.

Other ports. In addition to the ports of Sydney, Newcastle, Port Kembla, and Botany Bay, the Board controls 29 outports along the coastline of 1,900 kilometres. The shipping trade of these outports is relatively small.

Victoria

The *Port of Melbourne* comes under the control of the Melbourne Harbor Trust Commissioners, a financially independent statutory organisation, with a full-time chairman and five part-time commissioners.

The advanced methods of cargo handling which have developed with the advent of container, unit load, and roll-on roll-off vessels now entering the Port, have required, during the past 10 years, an expenditure in excess of \$60 million on capital works, and the current capital value of the Port of Melbourne is more than \$103 million. The Port covers an area of 27 square kilometres and provides 19 kilometres of berthage, with 92 commercial berths.

The main container complex, Swanson Dock, has four berths. Constructed at a cost of \$20 million, and taking some 6 years to complete, this 36 hectares complex handled 3.8 million tonnes of containerised cargo in 1973.

Currently, the Port of Melbourne has seven roll-on roll-off berths. The Webb Dock area, the Port's busiest roll-on roll-off complex, was originally a ferry berth (constructed in 1959) with a 2 hectares back-up area and has now been developed into a three berth complex, with a back-up area of 8 hectares. During 1973 Webb Dock handled 2.6 million tonnes of cargo.

The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is 9.4 to 11.3 metres.

The following table shows particulars of the financial operations of the Trust.

MELBOURNE HARBOR TRUST: FINANCES
(\$'000)

Year	Gross loan indebted- ness at 31 December	Revenue		Expenditure			Total	Surplus(+) or Deficit(-)
		Wharfage and tonnage rates	Total	Opera- tion, adminis- tration and mainten- ance	Interest, debt redemp- tion, exchange, etc.	General reserve, deprecia- tion, renewals and insurance account		
1969 . . .	37,888	8,901	14,321	7,903	2,127	4,049	14,079	+242
1970 . . .	40,690	9,475	15,047	8,512	2,869	3,419	14,800	+247
1971 . . .	44,059	10,038	16,263	9,719	3,152	3,158	16,029	+233
1972 . . .	45,644	9,398	15,478	10,569	2,506	2,867	15,942	-464
1973(a) . . .	(b)	5,455	8,777	4,768	1,298	1,930	7,996	+781

(a) From January 1973 the Trust's accounting period has been changed from a calendar year to a fiscal year.

(b) Gross loan indebtedness at 30 June 1973 was \$46,201,000.

The *Port of Geelong* operated by the Geelong Harbor Trust, has available 17 effective berths, plus 2 berths at the Explosives Pier, Point Wilson, owned and operated by the Australian Government. Two modern dry bulk berths (Lascelles Wharf Nos 1 and 2 berths) became fully operational in 1970 and a roll-on/roll-off berth at Corio Quay came into operation in January 1971.

Port of Portland. Development projects currently in hand will within the next year or so, provide the port with facilities necessary to handle fully laden carriers up to 71,000 tonnes deadweight. In the first instance No. 1 berth and its approaches are being dredged from 11 metres to 12 metres low water and the bulk grain gallery extended to the outer limits of the K. S. Anderson wharf. Trade handled during 1972-73 amounted to 649,611 tonnes; operating revenue was \$886,185.

Queensland

The ports of Queensland generally are administered by harbour boards with members representing the cities, towns and districts served by the ports. Where no board is established, control is exercised by the Corporation of the Treasurer through the Department of Harbours and Marine.

Harbour Board ports are Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton and Townsville.

Corporation of the Treasurer principal ports are Brisbane, Hay Point, Lucinda, Maryborough, Mourilyan, Thursday Island and Weipa.

Brisbane, the busiest port in the State, is a river port of world standard dredged to a sufficient depth to accommodate all classes of vessels on the Australian trade. The port, as well as providing wharves for containers, bulk grain fertiliser, freezer goods, petroleum products and general cargo, also provides shipbuilding and ship repair facilities including a dry dock accommodating vessels up to 71,000 tonnes deadweight. Two refineries, situated at the mouth of the river, can supply all ships' bunkering requirements.

The finances of Brisbane Harbour for the years 1968-69 to 1972-73 are shown in the following table.

BRISBANE HARBOUR: FINANCES
(\$'000)

Year	Loan indebtedness at 30 June	Receipts		Payments	
		Harbour dues	Total	Working expenses(a)	Total
1968-69 . . .	4,890	2,333	3,622	3,156	3,483
1969-70 . . .	5,726	2,320	3,772	4,542	4,927
1970-71 . . .	5,576	2,685	3,788	3,556	4,004
1971-72 . . .	6,352	3,001	4,349	3,308	3,789
1972-73 . . .	6,653	3,010	5,586	3,700	4,228

(a) Excludes interest and redemption included in total.

South Australia

Department of Marine and Harbors. All South Australian harbours are controlled by the Department of Marine and Harbors, which is responsible to the Minister of Marine for the discharge of its duties and functions. The most important ports are the six deep-sea ports of Port Adelaide, Port Pirie, Wallaroo, Port Lincoln, Port Giles and Thevenard. In South Australia there are also eight privately-owned and operated ports. The principal of these are Whyalla, Ardrossan, Rapid Bay, and Proper Bay (Broken Hill Pty Co. Ltd), Port Augusta (Commonwealth Railways) and Port Stanvac (Petroleum Refineries (Aust.) Pty Ltd). Maximum depths of water (low water) at the wharves of the main ports range from 8.2 metres at Port Pirie to 11.6 metres at Port Giles. The following table shows the finances of the Department for 1968-69 to 1972-73.

DEPARTMENT OF MARINE AND HARBORS, SOUTH AUSTRALIA: FINANCES
(\$'000)

Year	Loan indebtedness at 30 June	Revenue	Expenditure from revenue			Surplus(+) or Deficit(-)
			Working expenses	Interest	Total	
1968-69 . . .	47,614	6,653	4,365	1,957	6,322	+ 331
1969-70 . . .	50,736	7,282	4,265	2,176	6,442	+ 840
1970-71 . . .	55,081	7,628	5,056	2,431	7,487	+ 141
1971-72 . . .	57,824	7,611	5,346	2,796	8,142	- 530
1972-73 . . .	62,655	7,324	5,453	3,028	8,481	-1,157

Western Australia

The *Port of Fremantle* is operated and controlled by the Fremantle Port Authority. The port covers an extensive water area of some 466 square kilometres and comprises an inner and an outer harbour. The inner harbour includes 20 deep-water land-backed berths, providing more than 51,097 square metres of covered storage space and 3,994 metres of wharf berth accommodation. All inner harbour berths are dredged to a low water depth of 11 metres. The outer harbour includes 3 main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep-water jetties, including the oil refinery jetty in Cockburn Sound, are available in the outer harbour. Ocean-going deep draft ships enter the Sound by means of a channel dredged through Success and Parmelia Banks to a low water depth of 14 metres and a bottom width of 152 metres. In the outer harbour there are 3 tanker berths each with a low water depth of 13 metres at the Kwinana oil refinery, 2 berths at the nearby steelworks jetties with a low water depth of 12 metres, 2 berths at the alumina works jetty with a low water depth of 12 metres and 1 berth at the bulk cargo jetty with a low water depth of 13 metres. There is also a special berth for the handling of explosives. Total effective berth accommodation in the outer harbour is 1,862 metres. Gross earnings for 1972-73 amounted to \$11,387,750, working expenses to \$8,164,649, interest charges on loan capital \$1,366,743, and loan indebtedness totalled \$25,312,896.

The Ports of *Albany, Bunbury, Esperance, Geraldton* and *Port Hedland* are controlled by their respective Port Authorities.

Other ports. The following ports are controlled by the State Government Harbour and Light Department: Broome, Carnarvon, Derby, Onslow, Port Walcott and Wyndham. Ports privately controlled comprise Yampi and Dampier, both operated by iron ore mining companies, and Exmouth, the port serving the communications installation at North West Cape. A private buoyed sea terminal is operated at Barrow Island for the shipment of crude oil, and private interests ship salt at Cape Cuvier, and salt and gypsum from Useless Loop in Shark Bay.

Tasmania

Port services in Tasmania are under the control of seven port authorities: the Marine Boards of Hobart, Devonport, Burnie, Circular Head (Stanley), King Island (Currie), Flinders Island (Whitemark) and the Port of Launceston Authority. Port facilities previously under the control of the Smithton Harbour Trust were vested in the Circular Head Marine Board from July 1973. The ports at Hobart, Launceston (Bell Bay), Burnie and Devonport are general cargo terminals for overseas and interstate shipping. Other ports catering primarily for overseas export of specialised cargoes include Port Latta (iron ore pellets), Triabunna (wood chips), and Port Huon (fruit).

AUTHORITIES CONTROLLING PORTS, TASMANIA: FINANCES
1968-69 TO 1972-73
 (\$'000)

<i>Authority</i>	<i>Loan indebtedness at 30 June (a)</i>	<i>Receipts (revenue account) total</i>	<i>Expenditure (revenue account)</i>			<i>Total (a)</i>	<i>New loans raised</i>	<i>Loan expenditure</i>
			<i>Works and services</i>	<i>Loan charges</i>				
Hobart . . .	6,627	2,616	875	603	1,895	1,100	1,957	
Launceston . . .	9,196	2,715	1,007	774	2,242	2,001	2,124	
Devonport . . .	7,160	1,652	513	700	1,427	300	422	
Burnie . . .	12,722	1,808	295	831	1,369	..	228	
Circular Head . . .	1,019	125	8	100	122	56	70	
King Island . . .	58	55	49	3	81	..	4	
Flinders Island . . .	191	29	9	15	28	..	..
Smithton . . .	..	7	5	..	6	..	..
Total 1972-73	36,973	9,007	2,761	3,026	7,170	3,457	4,805	
1971-72	34,648	7,752	2,928	2,844	7,194	4,590	5,261	
1970-71	31,057	7,133	2,618	2,535	6,366	4,471	5,042	
1969-70	27,464	6,765	3,051	2,300	6,347	3,910	3,386	
1968-69	24,376	6,274	2,817	2,011	6,253	2,837	4,574	

(a) Includes expenditure not specified in component items.

CHAPTER 19

EDUCATION

Introduction

Previous year books have given a detailed factual and historical account of education in Australia. Since the previous issue, there have been significant changes, particularly in the Australian Government's programs of financial support for education. Other developments of importance are still in progress. It is hoped that it will be possible to include in the next year book a new account of Australian education, comprehending these new developments as well as the continuing elements of the previous system. In this issue, the descriptive section on education is confined to a general account of the major new developments that are taking place. For a comprehensive picture of the present scene, this account should be read in conjunction with the detailed material in the previous issue, Year Book No. 59. This chapter does, however, include a full set of statistical tables giving the usual coverage of basic education statistics.

State and Australian Government responsibilities in education

Briefly, the respective governmental responsibilities for education in Australia are as follows. The six State governments are responsible for providing education services for their citizens. They administer systems of primary, secondary and technical education; tertiary institutions in the States (universities and colleges of advanced education) are established under Acts of the State parliaments; and the conditions under which private educational institutions in the States may operate are determined by the State authorities. Detailed information on the education system of the States may be found in the respective State year books.

The Australian Government is responsible for the provision of education facilities in the Australian Capital Territory, the Northern Territory and Norfolk Island (*see* Chapter 30 of this Year Book for details), for Australia's participation in education activities at the international level, and for migrant education. Also, in recent years, the Australian Government has provided the State governments with increasing financial assistance specifically for schools, universities, colleges of advanced education, and technical colleges. In addition, the Australian Government has administered Australia-wide schemes of financial assistance for students for many years.

Developments in Primary and Secondary Education

Australian Government assistance to the States

Since 1945 education authorities in Australia have been faced with the task of rapidly providing more schools, more teachers and better facilities for a rapidly growing school population. In recent years the Australian Government has made increasingly large grants to the States specifically for expenditure on government and non-government schools.

In December 1972 the Australian Government appointed the Interim Committee for the Schools Commission (the Karmel Committee) to assess the financial needs of primary and secondary schools throughout Australia. In May 1973 this Committee made its recommendations on the needs of schools for assistance in the two years 1974 and 1975, and these recommendations were substantially accepted by the Australian Government.

The programs developed by the Karmel Committee are being administered by the Schools Commission, established in December 1973. The Schools Commission is a small expert body responsible to the Australian Minister for Education and serviced by its own professional and secretarial staff. It is working closely with State, non-government, and other national education authorities: to develop a national perspective on primary and secondary education; to ensure that the needs of children throughout Australia are identified and met; to ensure that national resources are directed towards meeting educational priorities on a needs basis; and to encourage innovations in education.

The Schools Commission is not involved in the detailed administration of school systems. State and non-government school authorities are continuing to exercise their existing responsibilities and the States in general decide the allocation of funds for their schools within the broad programs of financial assistance which the Australian Government has introduced. These programs, seven in all, have been in operation since January 1974. They involve the provision of the following:

Recurrent grants related to the needs of schools.

Funds for general buildings.

Funds for school libraries; these include funds for the development of library-resource centres in primary schools and basic courses in school librarianship for teachers.

Funds designated for the improvement of schools serving socio-economically disadvantaged areas.

Supplementary building grants are being made and funds are also being provided for the running costs of compensatory education programs in these schools.

Funds for the improvement of special education for handicapped children. Grants are being provided for the building and replacement of special education facilities, and to augment the funds for the running costs of both government and non-government special schools and classes.

Funds for improved in-service teacher education including the establishment of education centres for teachers.

Funds for experimental programs of an innovative nature at the school or system level.

In 1974, the Australian Government decided, on the recommendation of the Schools Commission, to supplement its programs of assistance for government and non-government schools to compensate for the effects of cost increases. An estimated \$79 million will be provided to supplement capital and recurrent grants for schools over the eighteen months commencing 1 July 1974.

Decentralisation and community involvement

There is a trend in Australian education towards a degree of decentralisation in the administration of primary and secondary education. Most States have established regional administrations responsible to a greater or lesser extent for matters, such as staffing, which were formerly undertaken by the central administration, and for professional services to schools.

As well as this movement towards greater administrative decentralisation, there has been a recent development of plans for greater responsibility of representative bodies at the school and local community level. There has also been a greater emphasis on the professional role of individual teachers and principals in developing the content and methods of education.

Open plan schools

In several States and in the Australian Capital Territory some new schools have been designed to have large open spaces to accommodate three or four teachers and their pupils, instead of the traditional single teacher classrooms. These open area schools represent an attempt to explore the possibilities of providing a more flexible learning situation. While the number of open plan schools is increasing, particularly at the primary level, the majority retain the traditional organisation.

Senior secondary colleges

Senior secondary colleges for students undertaking the final two years of secondary education are being developed in Tasmania and the Australian Capital Territory, because it is considered that the traditional features of secondary school organisation, while they may still be appropriate for younger students, do not in all respects meet the needs of students in the final two years; especially now that increasing numbers of students are completing the full secondary course. In addition, a senior secondary college is able to offer students a wider range of course options than could any high school with its smaller number of senior students.

Public secondary examinations

There is currently a trend towards abolition of State-wide public examinations at the secondary level. The following is the present position in each of the States.

New South Wales. There is a School Certificate examination at the end of the fourth year and a Higher School Certificate at the end of sixth (final) year. The School Certificate examination will be replaced by individual school assessments in 1975.

Victoria. The only external examination is that for the Higher School Certificate.

Queensland. Those completing three years of secondary schooling are issued with a Junior Certificate, based on teacher assessment and internal school examinations. The Senior Certificate, is awarded on the same basis at the end of the full secondary course.

South Australia. It has been announced that the Leaving Certificate and the Matriculation external examinations at the end of the fourth and fifth years respectively, will be replaced by some other form of assessment within the next few years.

Western Australia. An Achievement Certificate, based on school assessment, records progress in the first three years of secondary schooling. The Leaving Certificate examination is taken at the end of fifth year and subjects are set at two levels, Leaving and Matriculation.

Tasmania. At the end of fourth year there is an internal School Certificate examination based on assessment by the individual schools. An external Higher School Certificate examination is taken at the end of the fifth or sixth year.

School curricula

Each State Education Department has a curriculum development unit. These units have worked in close co-operation with examination boards, but with reductions in the number of external examinations, the emphasis now is rather on ensuring that schools have available to them curriculum materials which they can use or adapt to meet the specific educational needs of their students.

An important development of recent years has been increasing co-operation between the States in the development of curricula. This co-operation has been fostered by Australian Government involvement and financial support for national curriculum projects such as the Australian Science Education Project under which science learning materials for junior secondary classes have been developed.

A national Curriculum Development Centre has been established recently to foster curriculum and materials development from pre-school to post-secondary level. A major project being funded by the Curriculum Development Centre is the Social Education Materials Project. This project, covering a wide range of topics in social education, will have development teams working in all States, with the close collaboration of education authorities and teachers in social education.

Two committees were established in 1974 to investigate on a national basis particular questions affecting curriculum. These are:

- (1) A committee to inquire into the teaching of the languages of the major migrant groups in schools. The committee was established to investigate the extent to which the languages of the main migrant groups are taught in Australian schools and to recommend how such teaching can be extended. The committee includes representatives of Australian and State Education Departments, teachers, parents, non-government school authorities and migrant communities.
- (2) A national committee on English teaching. The committee was established by the Australian Minister for Education with the co-operation of the State education authorities. The committee will investigate ways in which written and spoken English may be taught more effectively in schools.

Developments in the education of special groups

Aboriginal people

In those areas of Australia where Aboriginal people retain their own languages and communities, attempts are now being made to meet their educational needs as seen by the people themselves. Among recent innovations are a bilingual program in schools in Aboriginal communities and special methods planned to identify and cater for the educational needs of small 'outstation' groups, usually speakers of the one language, who have decided to establish themselves at some distance from larger communities.

The teaching of Aboriginal children in their own languages was commenced in South Australia several years ago. The Australian Government has established bilingual programs in eight Northern Territory schools and similar programs are being developed in schools in Queensland and Western Australia. These programs aim to ease the young child's entry to the school situation by establishing literacy in his own language and to recognise the place which the child's heritage of language and culture should occupy in his education. It is considered that the approach of establishing literacy in the child's own language followed by increasing use of English will lead to greater competence with the English language than has been the case for these children in the past.

The 'outstation' approach to the education of small and isolated Aboriginal communities, some of which do not remain permanently at one location, is an attempt to provide a modified education service for these people, having regard to the principle that services will be provided at the request of the community concerned and within the general terms which that community lays down.

Use is being made of mobile schools and specially selected visiting advisory teachers for these communities. Aboriginal teachers have a central role in these programs.

Development of these new approaches to the education of Aboriginal people is still in the early stages, and they will be further developed and modified in the light of experience.

The Australian Government has direct responsibility for the education of Aboriginal people living in the Northern Territory. Details of provisions made for these Aboriginal people are given in Chapter 30, The Territories of Australia.

Under the *States Grants (Aboriginal Advancement) Act 1972-1973* administered by the Minister for Aboriginal Affairs, grants are provided to assist the extension and improvement of educational facilities for Aborigines living in the States. Additional pre-schools, homework centres, teaching materials, in-service courses for teachers, conferences and research activities are some of the items resulting from this assistance.

Migrant education

For many years State and Australian Government education authorities have co-operated in the provision of English language instruction for adult migrants and for migrant children in the schools. In recent years the Australian Government has made grants to government and non-government school authorities in the States to reimburse the costs of teaching English to migrant children in special classes. From July 1973 Australian Government assistance was extended to include provision of funds for the cost of demountable classrooms to accommodate English language classes for migrant children.

The Australian Department of Education develops material to increase the effectiveness of English language instruction for migrants. In 1974 the first parts of a new course for children aged 8-12 years were distributed to schools throughout Australia.

In 1974 the Australian Department of Education under new administrative arrangements assumed full responsibility for migrant education and related matters under the *Immigration (Education) Act 1971-1973*.

Education of handicapped children

Information on the Special Education program administered by the Schools Commission has been provided earlier in this section.

Tertiary Education—Major Developments

Funding of tertiary institutions

Prior to 1974 the State and Australian governments shared the financial responsibility for universities and colleges of advanced education in the States, each providing capital and recurrent funds in accordance with a matching formula.

Agreement was reached with the State governments in June 1973 that the Australian Government should, from 1 January 1974, take over the financial commitment of the States in respect of universities and colleges of advanced education. Appropriate offsets, to take account of payments that the States no longer have to make to their tertiary institutions, are being made in the general purpose funds provided by the Australian Government to the States.

The Australian Government is advised on its support for tertiary education by two statutory agencies, the Universities Commission (for universities), and the Commission on Advanced Education (for colleges of advanced education).

The Australian Government decided that, from the beginning of 1974 when it assumed full financial responsibility for tertiary education, tuition fees should no longer be charged for courses which lead to formal qualifications at universities and colleges of advanced education. Tuition fees have been abolished for such courses at technical colleges also. Complementing the abolition of fees are new arrangements for providing means-tested living allowances for students undertaking post-secondary courses (*see* page 662). All full-time students in approved courses at post-secondary institutions may receive these allowances subject to the means test requirements.

Teacher education

In Australia, universities, colleges of advanced education, State teachers colleges and non-government teachers colleges have shared in the task of teacher education. State teachers colleges have been administered and financed by State Education Departments.

In May 1973 the Australian Government accepted the recommendation of the Commission on Advanced Education that State teachers colleges and certain non-government colleges training pre-school teachers should be supported within the advanced education program. These institutions, from January 1974, have been fully funded by the Australian Government and are being developed as autonomous colleges of advanced education. Some of these single-purpose teachers colleges are extending their range of courses and may develop as multi-faculty institutions.

From January 1974 the Australian Government is providing assistance with the running costs of approved non-government teachers colleges training primary and secondary teachers.

Other current developments in tertiary education include the following:

Special grants are being provided to increase the numbers of social workers, social work planners and social welfare officers by establishing or expanding appropriate courses at universities and colleges of advanced education.

The Government is providing special grants to universities and colleges of advanced education to establish programs for the training of teachers of physically and mentally handicapped children.

The Government has agreed to provide special grants to universities to encourage the establishment of courses or Chairs of Community Practice in medical schools. To date, approval has been given for the development of programs in community practice in eight universities.

The Government is providing funds to establish Australia's first national post-graduate school of management education, which will be located at the University of New South Wales.

A draft report on 'Open Tertiary Education' was released for public discussion in May 1974 by the Committee on Open University, which was established by the Universities Commission at the request of the Australian Government. The Committee enquired into the desirability and means of expanding extra-mural degree courses of university standard having regard to the position of persons who are unable to meet the normal entry requirements of universities.

The Australian Government decided in 1974 to supplement grants previously approved for tertiary education to allow for the impact of cost increases. These supplementary funds total \$65 million over the 1974-75 financial year.

New developments which will be supported over the next few years include:

the establishment of new medical schools at the University of Newcastle and the James Cook University of North Queensland;

the development of new universities at Campbelltown in New South Wales, Geelong in Victoria, and at Albury-Wodonga;

the development of new colleges of advanced education at Coogee in Western Australia, Ourimbah in New South Wales, and on Queensland's Gold Coast.

Technical and Further Education

The term 'further education' has come into use in Australia, sometimes in association with 'technical education', to embrace the varied field of post-school educational provisions which do not come within the tertiary education area. 'Adult education' is a major component of the further education field.

South Australia has now established a Department of Further Education responsible for technical and adult education activities. In 1974, New South Wales which has had a separate Department of Technical Education since 1949, enacted legislation creating a Department of Technical and Further Education. This change was made in recognition of the diversity of the work of technical colleges in New South Wales which extends far beyond technical training narrowly defined, into the broader field of providing educational opportunities for adults. The Act makes administrative changes to meet more adequately present further education needs.

To assist the States, the Australian Government has in recent years made available capital grants for the provision of buildings and equipment for technical education. However, in the light of acknowledged deficiencies in the provision of technical education and of further education opportunities for adults, the Australian Government decided to investigate needs in this area with a view to the expansion of its financial assistance. The Australian Committee on Technical and Further Education was established in 1973 to undertake this investigation and to report on financial needs and priorities. The Committee was required to take into account promotion of the vigorous and well balanced development of technical and further education throughout Australia, overall manpower policy and national and local occupational requirements, and the needs and aspirations of individuals seeking to undertake technical and further education courses.

Following consideration of the recommendations of the Australian Committee on Technical and Further Education the Australian Government decided to introduce a program of capital and recurrent grants to the States for technical and further education from July 1974. The main elements of this program are summarised below:

General building grants which may be used for the preparation of development plans for technical colleges and similar institutions, for the purchase of land and for the construction and equipping of buildings.

Grants to improve facilities and equipment at existing colleges.

Grants for construction of student residential accommodation.

General recurrent grants which the States may use as they see fit to supplement their own expenditure on technical and further education. These grants include a component to compensate the States for the loss of income from tuition fees. (Abolition of fees for post-secondary education was referred to earlier).

Recurrent grants for expenditure in a number of specified areas, including curriculum research and development, improvement of library services, the provision of external study facilities, student counselling services, and in-service teaching staff development.

The Australian Government has announced its intention to establish a permanent Commission to advise on its assistance for technical and further education on a continuing basis.

Student assistance schemes

This section deals only with the most significant recent changes in arrangements for financial assistance to students available from the Australian Government on a nation-wide basis. Other student assistance schemes and scholarships are administered by State authorities, educational institutions, and other agencies.

For a number of years the Australian Government provided scholarships for which students at senior-secondary and post-secondary levels were able to compete. There has been a fundamental change from 1974 in the Government's student assistance arrangements. At all levels (with the exception of post-graduate studies where the existing scheme was retained), all full-time students enrolled in approved courses may receive allowances to assist them in meeting living and study expenses, subject to a means test. The intention of this change is to base assistance to students on their need for financial help rather than on academic competition for a limited number of awards.

Secondary Education

The Secondary Allowances Scheme provides an unlimited number of grants on the basis referred to above for students enrolled in the final two years of secondary education. It replaces the previous Scholarship Scheme for senior secondary students.

A special scheme of allowances is provided for children who, because of the geographic isolation of their homes, are denied reasonable daily access to normal school facilities. Special allowances are also available for all Aboriginal students enrolled at secondary schools.

Post-secondary Education

The Tertiary Education Assistance Scheme in 1974 replaced a number of competitive scholarship schemes including the Commonwealth University, Advanced Education, and Technical Scholarships Schemes. Post-secondary students generally are benefiting from the abolition of tuition fees referred to earlier.

Early childhood services

In recent years the States and the Australian Government have shown increasing concern for developing early childhood services (*see* the year books of the States for State developments in this field).

In February 1973 the Australian Government appointed an Australian Pre-Schools Committee to inquire into and make recommendations concerning financial assistance for the establishment and operation of pre-schools and child care centres in the States. Previously, under the *Child Care Act* 1972, the Australian Government had made limited provision for capital and recurrent grants for day care centres. In accordance with this Act an Advisory Committee on Child Care Research was also established.

The Pre-Schools Committee presented its Report in November 1973 and the Government invited comments on it from interested bodies and from the public. After consideration of the Pre-Schools Committee's Report and of the comments and reports of other authorities, including the Social Welfare Commission and the Priorities Review Staff, the Government announced in September 1974 that a Children's Commission would be established to administer all existing Australian Government commitments in child care and pre-school education, and to develop new programs to ensure that by 1980 all children in Australia will have access to services designed to take care of their educational, emotional, physical, social and recreational needs.

An Interim Committee has been appointed pending establishment of the Children's Commission. It will be the Committee's task to stimulate the development of a wide range of services, including full day care, family day care, playgroups, before and after school care, holiday care, occasional and emergency care, and early childhood education.

The emphasis of the program will be in areas of need. Planning and administration will proceed at the community level, and local communities will be assisted in the planning of services by community development officers, or people trained and employed for the purpose of stimulating community participation in the expression of needs and the design and implementation of services.

Educational training in the Defence Force

Each of the Services maintains institutions for the education of Service personnel. The Royal Australian Naval College, Jervis Bay, Australian Capital Territory, is affiliated with the University of New South Wales. Selected officer cadets complete first year degree studies in science, engineering or surveying at the College, and subsequent years of studies at the University. Other educational training is provided at the College for officer cadets other than those studying for degrees. The Royal Military College, Duntroon, Australian Capital Territory, is also affiliated with the University of New South Wales. Army officer cadets may undertake full degree courses in arts, science, or civil, mechanical or electrical engineering at the College. The Royal Australian Air Force Academy, Point Cook, Victoria, is affiliated with the University of Melbourne. RAAF officer cadets may undertake full degree courses in science at the Academy. On completion of the first academic year at the Academy, selected RAAF cadets may proceed to the University of Sydney to complete degrees in engineering. By a 1974 decision of the Australian Government, the three officer cadet colleges are to be replaced by one Australian Defence Force Academy, to be established by 1979 at Duntroon.

Further education of officers at later stages of their careers is provided for at Staff Colleges. The Australian Staff College, Queenscliff, Victoria, and the RAAF Staff College, Fairbairn, Australian Capital Territory, provide educational training courses of approximately one year for officers of the rank of captain, major or equivalent. The Joint Services Staff College, Weston Creek, Australian Capital Territory, provides educational training courses of approximately five months duration for officers of Lieutenant-Colonel or equivalent rank to prepare them for senior appointments in the Department of Defence and in the Services.

Educational training is also provided in apprentice training schools conducted by each Service: the RAN School at Quakers Hill, New South Wales; the Army School at Balcombe, Victoria; and the RAAF Schools at Wagga Wagga, New South Wales, and Laverton, Victoria. Other educational training is provided at the RAN Junior Recruit Training School, Fremantle, Western Australia, and at the RAAF School of Languages, Point Cook, Victoria.

Further information on the training establishments of the Armed Forces is contained in Chapter 4, Defence.

EDUCATION STATISTICS

For the most recent statistics available on subjects dealt with in this chapter reference should be made to the series of mimeographed bulletins on social statistics issued by the Australian Bureau of Statistics. These bulletins comprise *Schools* (13.5), *Teacher Education* (13.12), *Colleges of Advanced Education* (13.10) and *University Statistics* Parts 1, 2, 3 (13.7, 13.8, 13.9). The *Quarterly Summary of Australian Statistics* (1.3) contains summarised information on these subjects, and financial aspects are dealt with in the annual bulletins *Public Authority Finance—Authorities of the Australian Government* (5.12), *Public Authority Finance—State and Local Authorities* (5.43) and *Expenditure on Education* (5.44). The annual reports of the respective State education departments provide detailed statistical and other information about particular States. The Australian Department of Education issues publications on aspects of primary, secondary and tertiary and other post-secondary education.

Summary tables

Statistics summarising the number of educational institutions in Australia and the number of students attending them in 1973 and earlier years are shown in the following tables.

NUMBER OF EDUCATIONAL INSTITUTIONS, 1973

	Schools				Teachers Colleges		Colleges of Advanced Education	Universities
	Government	Roman Catholic	Other non-government	Technical Colleges	Government	Non-government		
New South Wales	2,287	636	172	61	8	10	11	5
Victoria	2,179	471	98	106	13	7	20	3
Queensland	1,228	292	47	23	4	3	5	2
South Australia	614	118	45	29	4	1	4	2
Western Australia	613	163	34	137	5	1	1	1
Tasmania	241	43	14	9	..	..	1	1
Northern Territory	91	11	7	1	..	..	..	..
Australian Capital Territory	58	20	5	1	..	1	1	1
Australia—1973	7,311	1,754	422	367	34	23	43	15
1972	7,362	1,768	422	n.a.	37	22	45	15
1971	7,404	1,769	415	303	38	22	44	15
1970	7,470	1,781	399	292	39	23	44	15
1969	7,541	1,785	390	296	37	22	45	15

NUMBER OF STUDENTS ENROLLED AT EDUCATIONAL INSTITUTIONS, 1973

	Schools				Teachers Colleges(b)		Colleges of Advanced Education	Universities
	Government	Roman Catholic	Other non-government	Technical Colleges(a)	Government	Non-government		
New South Wales	776,799	186,508	33,410	159,247	6,176	1,380	10,902	53,099
Victoria	605,644	149,236	44,201	81,680	9,903	1,042	26,056	32,313
Queensland	314,779	75,313	15,337	34,906	3,864	52	5,432	18,815
South Australia	231,786	26,291	11,671	64,603	2,871	..	6,662	11,497
Western Australia	185,220	33,018	9,560	70,713	2,235	..	7,841	9,077
Tasmania	77,991	9,844	4,008	7,368	..	..	2,003	3,263
Northern Territory	17,984	2,360	727	3,062	..	..	..	..
Australian Capital Territory	30,439	9,205	2,080	8,686	..	102	2,679	5,062
Australia—1973	2,240,642	491,775	120,994	430,265	25,049	2,576	61,575	133,126
1972	2,228,941	492,914	119,096	n.a.	23,714	2,040	52,034	128,668
1971	2,196,571	494,725	116,349	395,893	21,831	2,034	44,351	123,776
1970	2,160,177	493,849	114,207	387,812	19,059	1,829	37,625	116,778
1969	2,113,963	491,219	111,779	398,578	17,331	1,425	31,949	109,662

(a) Statistics shown refer to gross enrolments, no allowance having been made for students enrolled in more than one course. (b) Excludes students enrolled at both a teachers college and another type of institution; they are included in the statistics for the other institution at which they are enrolled.

Schools

Statistics of government and non-government schools, teachers and students in 1973 and earlier years are shown in the following tables. The number of schools and teachers refer to the position at dates which vary from State to State and in some instances from year to year. Institutions providing only pre-school education, senior technical and agricultural colleges, evening schools, continuation classes, and institutions such as business colleges and coaching establishments are not included in these statistics. Student statistics in the tables which follow refer to the number of students enrolled at the schools included in this collection at the August schools census date. For more detailed statistical information, see the annual bulletin *Schools* (13.5).

NUMBERS OF SCHOOLS, TEACHERS AND STUDENTS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1973

	<i>Non-government schools</i>							<i>Total</i>	<i>All schools</i>
	<i>Denominational</i>								
	<i>Government schools</i>	<i>Church of England</i>	<i>Methodist</i>	<i>Presbyterian</i>	<i>Roman Catholic</i>	<i>Other</i>	<i>Undenominational</i>		
SCHOOLS									
New South Wales . . .	2,287	36	6	11	636	24	95	808	3,095
Victoria . . .	2,179	30	4	11	471	28	25	569	2,748
Queensland . . .	1,228	13	(a)	2	292	22	10	339	1,567
South Australia . . .	614	9	3	2	118	24	7	163	777
Western Australia . . .	613	10	3	2	163	10	9	197	810
Tasmania . . .	241	4	1	2	43	6	1	57	298
Northern Territory . . .	91	..	2	..	11	2	3	18	109
Australian Capital Territory . . .	58	3	..	..	20	1	1	25	83
Australia—1973 . . .	7,311	105	19	30	1,754	117	151	2,176	9,487
1972 . . .	7,362	108	19	33	1,768	113	149	2,190	9,552
1971 . . .	7,404	107	20	33	1,769	113	142	2,184	9,588
1970 . . .	7,470	108	19	33	1,781	112	127	2,180	9,650
1969 . . .	7,541	110	18	34	1,785	109	119	2,175	9,716

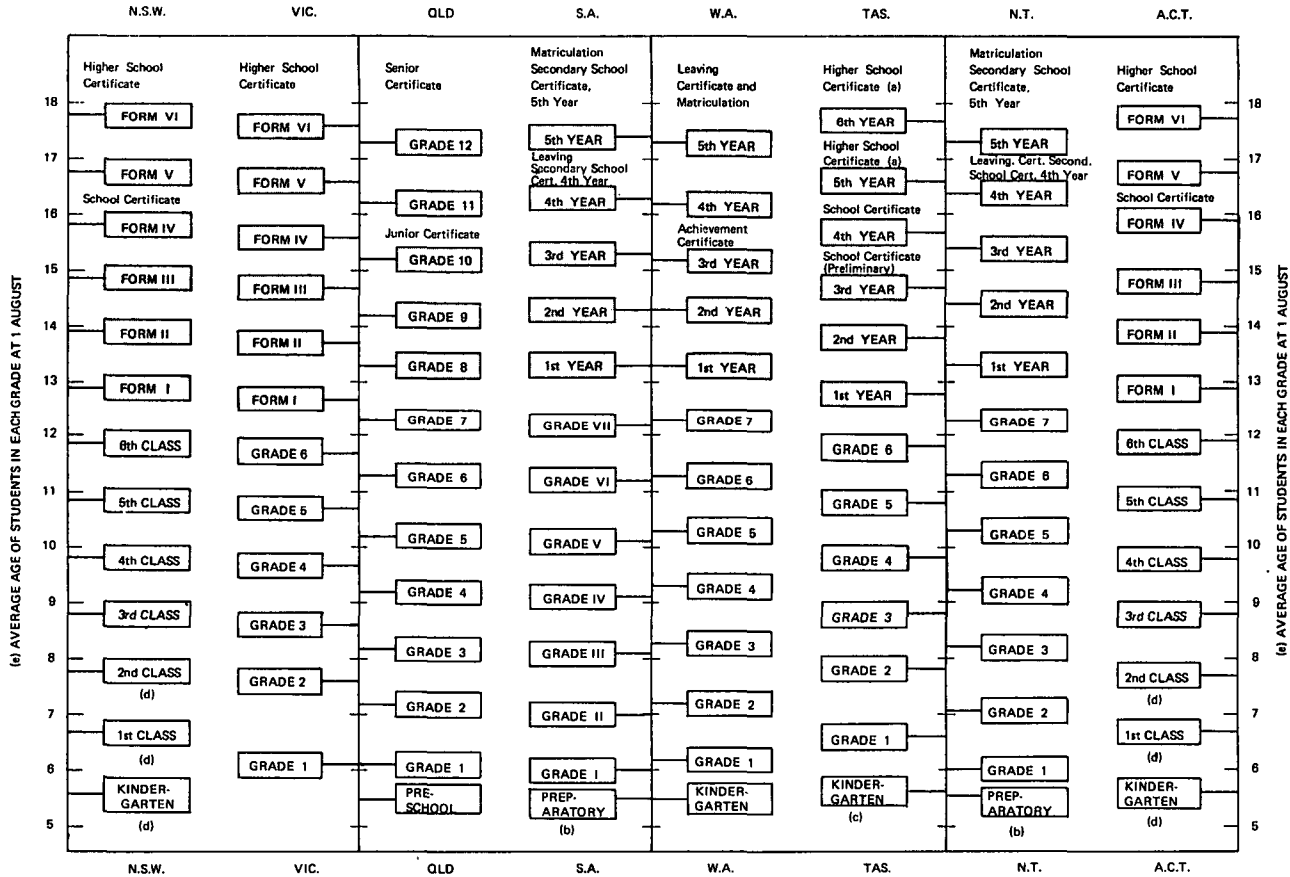
TEACHERS(b)									
New South Wales . . .	36,833	1,010	212	382	7,474	165	612	9,855	46,688
Victoria . . .	32,107	1,239	280	573	5,496	492	405	8,485	40,592
Queensland . . .	14,202	362	(a)	41	2,799	233	280	3,715	17,917
South Australia . . .	11,606	260	127	107	1,040	139	105	1,777	13,383
Western Australia . . .	8,264	288	137	109	1,238	55	32	1,859	10,123
Tasmania . . .	3,887	101	24	40	406	94	6	671	4,538
Northern Territory . . .	901	..	21	..	110	11	3	(c)145	1,046
Australian Capital Territory . . .	1,332	114	..	..	357	2	10	483	1,815
Australia—1973 . . .	109,132	3,375	801	1,252	18,920	1,191	1,453	26,990	136,122
1972 . . .	104,547	3,338	733	1,238	17,986	1,178	1,410	25,884	130,431
1971 . . .	99,011	3,266	750	1,201	17,270	1,118	1,285	24,889	123,901
1970 . . .	95,382	3,152	741	1,214	16,577	1,057	1,215	23,956	119,338
1969 . . .	91,888	3,006	711	1,165	15,413	993	1,136	22,423	114,311

STUDENTS (SCHOOL CENSUS)									
New South Wales . . .	776,799	14,794	2,977	5,784	186,508	2,657	7,198	219,918	996,717
Victoria . . .	605,644	18,182	4,296	8,606	149,236	7,668	5,449	193,437	799,081
Queensland . . .	314,779	5,694	(a)	598	75,313	4,288	4,757	90,650	405,429
South Australia . . .	231,786	3,793	2,227	1,636	26,291	2,694	1,321	37,962	269,748
Western Australia . . .	185,220	4,265	2,052	1,512	33,018	1,107	624	42,578	227,798
Tasmania . . .	77,991	1,558	336	572	9,844	1,371	171	13,852	91,843
Northern Territory . . .	17,984	..	437	..	2,360	266	24	3,087	21,071
Australian Capital Territory . . .	30,439	1,844	..	..	9,205	33	203	11,285	41,724
Australia—1973 . . .	2,240,642	50,130	12,325	18,708	491,775	20,084	19,747	612,769	2,853,411
1972 . . .	2,228,941	49,516	12,321	18,760	492,914	19,407	19,092	612,010	2,840,931
1971 . . .	2,196,571	49,010	12,309	18,645	494,725	18,755	17,630	611,074	2,807,645
1970 . . .	2,160,177	48,315	12,266	18,664	493,849	18,007	16,955	608,056	2,768,233
1969 . . .	2,113,963	47,376	12,086	18,623	491,219	17,299	16,395	602,998	2,716,961

(a) There are no Methodist schools in Queensland. Schools conducted by the Presbyterian and Methodist Schools Association are included with 'other'. (b) Full-time teachers plus part-time teachers are expressed in equivalent full-time units and rounded to whole numbers. Teachers in training are excluded. (c) Excludes unqualified teachers and teaching assistants at mission schools.

GRADES IN GOVERNMENT SCHOOLS, STATES 1973

PLATE 42



The above diagram shows the usual grades in government primary and secondary schools in each State and Territory. Approximate average ages (at 1 August 1973) for each grade in each State and Territory are given in order to indicate differences in age-grade patterns. The diagram should not be taken as a comparison of academic standards of grades between States. For a more detailed presentation of the systems operating in each State, reference should be made to diagrams, etc. appearing in the annual reports of State Education Departments.

In all States and Territories, the non-government school sector has an average age-grade pattern which is very similar to that for government schools. It should be noted that in some States and Territories there is a trend in both government and non-government schools not to allocate pupils into a grade structure.

Further explanatory notes: (a) In Tasmania most pupils study for the Higher School Certificates over a two year period.

(b) Preparatory grades are attached to some schools in South Australia and the Northern Territory.

(c) In Tasmania, many children attend two year kindergarten grades.

(d) In N.S.W. and A.C.T., kindergarten, 1st class and 2nd class are termed "infants" grades.

(e) For age distribution within grades refer to age-grade tables which are available on request from the Bureaus.

Primary Grades

Secondary Grades

(e) AVERAGE AGE OF STUDENTS IN EACH GRADE AT 1 AUGUST

**GOVERNMENT AND NON-GOVERNMENT SCHOOLS: STUDENTS, BY AGE AND SEX
AUSTRALIA, 1973**
(School census enrolment)

Age last birthday (years)	Government schools			Non-government schools			All schools		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Under 6	84,135	79,729	163,864	20,191	20,192	40,383	104,326	99,921	204,247
6	99,569	93,571	193,140	23,036	23,209	46,245	122,605	116,780	239,385
7	97,931	91,597	189,528	23,357	23,684	47,041	121,288	115,281	236,569
8	98,939	92,861	191,800	24,194	24,442	48,636	123,133	117,303	240,436
9	103,044	95,933	198,977	25,219	25,582	50,801	128,263	121,515	249,778
10	105,407	98,428	203,835	25,378	25,984	51,362	130,785	124,412	255,197
11	106,343	99,376	205,719	26,380	27,253	53,633	132,723	126,629	259,352
12	104,698	96,688	201,386	27,698	28,817	56,515	132,396	125,505	257,901
13	101,967	94,223	196,190	26,727	27,978	54,705	128,694	122,201	250,895
14	98,650	91,445	190,095	25,439	27,103	52,542	124,089	118,548	242,637
15	79,552	71,113	150,665	23,609	24,592	48,201	103,161	95,705	198,866
16	50,572	42,812	93,384	17,994	17,148	35,142	68,566	59,960	128,526
17	26,594	20,949	47,543	11,931	10,001	21,932	38,525	30,950	69,475
18	7,965	4,543	12,508	3,070	1,749	4,819	11,035	6,292	17,327
19 and over	1,454	554	2,008	548	264	812	2,002	818	2,820
Australia—1973	1,166,820	1,073,822	2,240,642	304,771	307,998	612,769	1,471,591	1,381,820	2,853,411
1972	1,164,672	1,064,269	2,228,941	304,396	307,614	612,010	1,469,068	1,371,883	2,840,951
1971	1,149,493	1,047,078	2,196,571	303,474	307,600	611,074	1,452,967	1,354,678	2,807,645
1970	1,130,925	1,029,252	2,160,177	301,935	306,121	608,056	1,432,860	1,335,373	2,768,233
1969	1,107,082	1,006,881	2,113,963	299,102	303,896	602,998	1,406,184	1,310,777	2,716,961

SCHOOLS: STUDENTS, BY AGE, 1973
(School census enrolment)

Age last birthday (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Under 6	78,768	63,171	19,982	20,174	8,810	6,861	2,817	3,664	204,247
6	81,607	67,084	35,834	21,369	20,537	7,180	2,235	3,539	239,385
7	80,423	65,720	35,241	21,755	20,449	7,258	2,190	3,533	236,569
8	81,182	66,834	36,185	22,609	20,563	7,596	1,940	3,527	240,436
9	85,307	68,374	38,093	23,155	21,074	8,237	2,004	3,534	249,778
10	87,787	69,162	38,635	23,680	22,167	8,249	1,924	3,593	255,197
11	90,081	69,971	39,300	24,235	21,742	8,599	1,784	3,640	259,352
12	89,417	69,170	39,032	24,682	21,914	8,473	1,723	3,490	257,901
13	85,856	67,754	38,319	24,315	21,355	8,466	1,471	3,359	250,895
14	83,354	66,366	36,647	23,354	20,293	8,212	1,287	3,124	242,637
15	71,633	56,465	25,640	19,186	15,342	6,915	911	2,774	198,866
16	45,055	41,082	14,014	13,579	8,757	3,464	527	2,048	128,526
17	27,087	22,020	6,818	5,829	4,415	1,732	185	1,389	69,475
18	8,308	4,824	1,444	1,396	345	483	50	477	17,327
19 and over	852	1,084	(a)245	430	35	118	23	33	2,820
Australia—1973	996,717	799,081	405,429	269,748	227,798	(b)91,843	21,071	41,724	2,853,411
1972	1,001,254	794,769	397,582	270,501	225,837	92,003	19,875	39,130	2,840,951
1971	993,587	785,148	390,595	269,316	222,002	92,311	18,089	36,597	2,807,645
1970	981,625	776,468	385,399	266,175	215,968	91,846	16,518	34,234	2,768,233
1969	965,553	761,577	380,987	262,760	209,248	90,309	14,984	31,543	2,716,961

(a) Excludes 2153 correspondence students (1,141 males, 1,012 females) aged 19 years and over.

(b) Excludes 144 correspondence students (75 males, 69 females) who are employed.

Technical and further education

Statistics given in the following tables show the number of teaching staff and the number of enrolments in courses at all senior technical schools, technical colleges, and institutes of technology and colleges of advanced education providing technical and further education. For further details, see the report of the Australian Committee on Technical and Further Education *T.A.F.E. in Australia: Report on Needs in Technical and Further Education*, April 1974.

TECHNICAL AND FURTHER EDUCATION: ENROLMENTS^(a) BY ACADEMIC STREAM TYPE OF ENROLMENT AND FIELD OF STUDY, 1973

Field of study	Academic stream						Total
	Pro- fessional	Para- pro- fessional	Trades	Other skilled	Pre- paratory	Adult Education	
FULL-TIME							
Applied science	6	180	..	..	417	..	603
Art and design	1,120	1,063	..	13	793	..	2,989
Building industry . . . . .	..	77	239	43	115	..	474
Business studies	24	2,338	..	6,435	597	..	9,394
Engineering	46	3,054	379	112	611	..	4,202
Rural and horticultural Music . . . . .	..	182	..	56	..	..	238
Para-medical services . . . . .	..	29	5	..	12	..	46
Service industries	73	926	129	10	431	..	1,569
General studies . . . . .	..	119	..	..	3,388	4	3,511
Total	1,269	7,968	752	6,669	6,364	4	23,026
PART-TIME							
Applied science . . . . .	..	3,837	9	328	1,813	501	6,488
Art and design	418	5,100	192	3,202	259	16,574	25,745
Building industry . . . . .	..	6,450	24,017	2,663	533	7,725	41,388
Business studies	680	38,738	121	23,297	842	1,187	64,865
Engineering	1	27,944	58,635	10,314	2,305	2,775	101,974
Rural and horticultural Music . . . . .	..	2,311	578	3,726	14	852	7,481
Para-medical services	14	1,623	211	274	..	2,182	2,182
Service industries	140	4,386	13,834	20,853	..	57	2,179
General studies	112	1,248	..	396	25,119	19,032	58,245
Total	1,365	91,637	97,597	65,053	30,885	79,351	365,888
CORRESPONDENCE							
Applied science . . . . .	..	150	..	6	1,534	..	1,690
Art and design . . . . .	..	9	27	67	..	355	458
Building industry . . . . .	..	727	2,015	352	..	..	3,094
Business studies	154	9,619	46	1,849	1,099	..	12,767
Engineering . . . . .	..	3,415	4,558	1,238	..	376	9,587
Rural and horticultural Music . . . . .	..	444	244	807	..	15	1,510
Para-medical services . . . . .	..	138	17	44	271	6	6
Service industries	17	250	1,328	1,171	..	75	470
General studies	88	358	..	160	7,543	779	2,841
Total	259	15,110	8,235	5,694	10,447	1,606	41,351
ALL ENROLMENTS							
Applied science	6	4,167	9	334	3,764	501	8,781
Art and design	1,538	6,172	219	3,282	1,052	16,929	29,192
Building industry . . . . .	..	7,254	26,271	3,058	648	7,725	44,956
Business studies	858	50,695	167	31,581	2,538	1,187	87,026
Engineering	47	34,413	63,572	11,664	2,916	3,151	115,763
Rural and horticultural Music . . . . .	..	2,937	822	4,589	14	867	9,229
Para-medical services	14	1,790	233	318	283	2,188	2,188
Service industries	230	5,562	15,291	22,034	431	57	2,695
General studies	200	1,725	..	556	36,050	19,107	62,655
Total	2,893	114,715	106,584	77,416	47,696	80,961	430,265

(a) Statistics shown refer to gross enrolments, no allowance having been made for students enrolled in more than one course.

TECHNICAL AND FURTHER EDUCATION: TEACHING STAFF(a) BY ACADEMIC STREAM, 1973

Academic stream	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
FULL-TIME STAFF									
Professional	39	9	12	4	10	..	1	6	80
Para-professional	649	195	110	227	389	27	2	41	1,639
Trades	874	292	433	362	297	126	7	34	2,423
Other skilled	414	23	73	32	..	25	..	27	594
Preparatory	167	70	2	52	55	2	1	8	357
Adult education	26	4	8	59	5	..	5	1	107
<i>Total</i>	<i>2,168</i>	<i>593</i>	<i>637</i>	<i>735</i>	<i>755</i>	<i>180</i>	<i>16</i>	<i>116</i>	<i>5,200</i>
PART-TIME STAFF (FULL-TIME EQUIVALENT)									
Professional	83	41	4	2	2	1	3	1	137
Para-professional	506	451	68	43	106	32	..	25	1,232
Trades	191	929	7	22	38	22	..	14	1,222
Other skilled	278	145	14	42	20	11	1	6	518
Preparatory	155	249	55	61	55	6	3	9	592
Adult education	57	153	4	158	120	..	5	9	505
<i>Total</i>	<i>1,270</i>	<i>1,968</i>	<i>152</i>	<i>328</i>	<i>341</i>	<i>72</i>	<i>12</i>	<i>64</i>	<i>4,207</i>
ALL TEACHING STAFF (FULL-TIME EQUIVALENT)									
Professional	122	50	16	6	12	1	4	7	217
Para-professional	1,155	646	178	270	495	59	2	66	2,871
Trades	1,065	1,221	440	384	335	148	7	48	3,645
Other skilled	692	168	87	74	20	36	1	33	1,112
Preparatory	322	319	57	114	110	8	4	17	949
Adult education	83	157	12	217	125	..	10	10	612
<i>Total</i>	<i>3,438</i>	<i>2,561</i>	<i>789</i>	<i>1,063</i>	<i>1,096</i>	<i>252</i>	<i>28</i>	<i>181</i>	<i>9,406</i>

(a) Any discrepancies between totals and sums of components are due to rounding.

Teacher education

The following table shows the number of male and female students undertaking teacher education courses in government and non-government colleges from 1970 to 1973. Only students enrolled in courses of one year or longer leading to a first teaching qualification are included. The statistics exclude enrolments of practising and newly qualified teachers and those teachers attending short refresher courses and summer schools. For further details, see the annual bulletin *Teacher Education* (13.12).

TEACHER EDUCATION: NUMBER OF STUDENTS(a) BY COURSE LEVEL
TYPE OF INSTITUTION ATTENDED AND SEX

	1970		1971		1972		1973		
	Males	Females	Males	Females	Males	Females	Males	Females	Persons
DEPARTMENTAL STUDENTS									
Courses for primary teaching	3,251	11,184	3,577	12,603	4,226	13,946	4,700	15,034	19,734
Courses for secondary teaching	9,923	12,146	11,463	14,334	13,535	16,316	14,526	17,235	31,761
Courses not classifiable as primary or secondary teaching	24	45	23	38	..	2	..	2	2
<i>Total</i>	<i>13,198</i>	<i>23,375</i>	<i>15,063</i>	<i>26,975</i>	<i>17,761</i>	<i>30,264</i>	<i>19,226</i>	<i>32,271</i>	<i>51,497</i>
Enrolled at government teachers college only	5,198	13,496	6,306	15,062	7,137	15,938	7,744	16,655	24,399
Enrolled at university or other institution—									
Also enrolled at teachers college	6,483	8,005	6,328	8,365	7,391	9,200	7,546	9,150	16,696
Not enrolled at teachers college	1,517	1,874	2,429	3,548	3,233	5,126	3,936	6,466	10,402
<i>Total</i>	<i>13,198</i>	<i>23,375</i>	<i>15,063</i>	<i>26,975</i>	<i>17,761</i>	<i>30,264</i>	<i>19,226</i>	<i>32,271</i>	<i>51,497</i>

For footnotes see end of table

TEACHER EDUCATION: NUMBER OF STUDENTS(a) BY COURSE LEVEL
TYPE OF INSTITUTION ATTENDED AND SEX—*continued*

	1970		1971		1972		1973		
	Males	Females	Males	Females	Males	Females	Males	Females	Persons
NON-DEPARTMENTAL STUDENTS(b)									
Courses for primary teaching	295	1,587	301	1,822	393	1,894	478	2,117	2,595
Courses for secondary teaching	273	270	271	196	332	243	443	503	946
Courses not classifiable as primary or secondary teaching	25	56	14	100	38	189	55	169	224
<i>Total</i>	<i>593</i>	<i>1,913</i>	<i>586</i>	<i>2,118</i>	<i>763</i>	<i>2,326</i>	<i>976</i>	<i>2,789</i>	<i>3,765</i>
Enrolled at government teachers college only	142	223	132	331	189	450	186	464	650
Enrolled at private teachers college only Enrolled at university or other insti- tution—	256	1,573	309	1,725	387	1,653	610	1,966	2,576
Also enrolled at teachers college	195	117	145	62	145	74	71	62	133
Not enrolled at teachers college(c) . . . . .	..	..	..	..	42	149	109	297	406
<i>Total</i>	<i>593</i>	<i>1,913</i>	<i>586</i>	<i>2,118</i>	<i>763</i>	<i>2,326</i>	<i>976</i>	<i>2,789</i>	<i>3,765</i>
ALL STUDENTS(b)									
Courses for primary teaching	3,546	12,771	3,878	14,425	4,619	15,840	5,178	17,151	22,329
Courses for secondary teaching	10,196	12,416	11,734	14,530	13,867	16,559	14,969	17,738	32,707
Courses not classifiable as primary or secondary teaching	49	101	37	138	38	191	55	171	226
<i>Total</i>	<i>13,791</i>	<i>25,288</i>	<i>15,649</i>	<i>29,093</i>	<i>18,524</i>	<i>32,590</i>	<i>20,202</i>	<i>35,060</i>	<i>55,262</i>
Enrolled at government teachers college only	5,340	13,719	6,438	15,393	7,326	16,388	7,930	17,119	25,049
Enrolled at private teachers college only Enrolled at university or other insti- tution—	256	1,573	309	1,725	387	1,653	610	1,966	2,576
Also enrolled at teachers college	6,678	8,122	6,473	8,427	7,536	9,274	7,617	9,212	16,829
Not enrolled at teachers college	1,517	1,874	2,429	3,548	3,275	5,275	4,045	6,763	10,808
<i>Total</i>	<i>13,791</i>	<i>25,288</i>	<i>15,649</i>	<i>29,093</i>	<i>18,524</i>	<i>32,590</i>	<i>20,202</i>	<i>35,060</i>	<i>55,262</i>
New South Wales	4,684	8,192	5,828	10,412	7,238	11,687	7,867	12,108	19,975
Victoria	5,089	8,870	5,282	9,430	5,926	10,420	6,609	11,525	18,134
Queensland	1,132	2,847	1,353	3,134	1,712	3,489	1,837	3,914	5,751
South Australia	1,620	2,781	1,820	3,138	2,040	3,479	2,136	3,593	5,729
Western Australia	840	1,714	894	2,017	1,096	2,403	1,220	2,631	3,851
Tasmania	424	785	471	866	479	895	474	1,006	1,480
Australian Capital Territory	2	99	1	96	33	217	59	283	342
<i>Total</i>	<i>13,791</i>	<i>25,288</i>	<i>15,649</i>	<i>29,093</i>	<i>18,524</i>	<i>32,590</i>	<i>20,202</i>	<i>35,060</i>	<i>55,262</i>

(a) Excludes 977 students enrolled at kindergarten teachers colleges in 1970; 1,069 in 1971; 1,216 in 1972 and 1,531 in 1973. (b) For 1973, non-departmental students (other than Federal teacher trainees) enrolled at New South Wales government teachers colleges are excluded. (c) Federal teacher trainees only.

Colleges of Advanced Education

The following statistics refer to operative institutions listed in the appropriate States Grants (Advanced Education) Acts as colleges of advanced education, and the Canberra College of Advanced Education. These tables show details of students commencing advanced level courses, the number of students and teaching staff in 1973 and the number of students who completed advanced level courses in 1972. The reference date for these statistics is 30 April 1973 except for students who completed advanced level courses for whom the reference date is 31 December 1972. For more detailed statistics, see the annual bulletin *Colleges of Advanced Education* (13.10).

COLLEGES OF ADVANCED EDUCATION: STUDENTS COMMENCING BY LEVEL OF COURSE AND FIELD OF STUDY, 1973

Field of study	Degrees		Graduate Diploma	Diploma	Associate Diploma	Total		
	Master	Bachelor				Males	Females	Persons
Agriculture . . . . .	..	71	20	432	73	516	80	596
Applied sciences . . . . .	..	1,298	134	644	121	1,780	417	2,197
Art and design . . . . .	..	..	41	1,703	301	896	1,149	2,045
Building, surveying and architecture . . . . .	..	360	74	548	311	1,166	127	1,293
Commercial and business studies . . . . .	..	2,498	829	3,698	755	6,642	1,138	7,780
Engineering and technology	2	1,839	66	1,134	375	3,378	38	3,416
Liberal studies . . . . .	..	588	249	1,386	146	1,051	1,318	2,369
Music . . . . .	..	30	..	174	..	62	142	204
Para-medical	11	566	26	596	584	576	1,207	1,783
Teacher education	30	246	223	1,684	..	682	1,501	2,183
Total	43	7,496	1,662	11,999	2,666	16,749	7,117	23,866

COLLEGES OF ADVANCED EDUCATION: STUDENTS BY TYPE OF ENROLMENT LEVEL OF COURSE AND FIELD OF STUDY, 1973

Field of study	Degrees		Graduate Diploma	Diploma	Associate Diploma	Total		
	Master	Bachelor				Males	Females	Persons
FULL-TIME								
Agriculture . . . . .	..	79	20	971	140	1,058	152	1,210
Applied sciences . . . . .	..	1,686	48	864	68	2,188	478	2,666
Art and design . . . . .	..	..	38	3,023	399	1,508	1,952	3,460
Building, surveying and architecture . . . . .	..	492	..	881	113	1,297	189	1,486
Commercial and business studies . . . . .	..	1,774	162	3,446	323	4,439	1,266	5,705
Engineering and technology	2	2,856	12	2,156	348	5,329	45	5,374
Liberal studies . . . . .	..	535	143	1,213	25	819	1,097	1,916
Music . . . . .	..	69	..	530	4	179	424	603
Para-medical	7	1,054	16	1,425	355	752	2,105	2,857
Teacher education . . . . .	..	511	163	3,966	..	1,373	3,267	4,640
Total	9	9,056	602	18,475	1,775	18,942	10,975	29,917

PART-TIME

Agriculture . . . . .	..	16	..	14	17	41	6	47
Applied sciences	5	1,450	152	1,178	338	2,734	389	3,123
Art and design . . . . .	..	..	75	806	324	717	488	1,205
Building, surveying and architecture . . . . .	..	250	127	1,128	795	2,172	128	2,300
Commercial and business studies . . . . .	..	3,017	1,419	6,806	989	11,331	900	12,231
Engineering and technology	5	1,734	210	2,415	758	5,093	29	5,122
Liberal studies . . . . .	..	621	253	1,294	211	1,232	1,147	2,379
Music . . . . .	..	..	..	16	..	3	13	16
Para-medical	9	245	10	89	561	383	531	914
Teacher education	30	32	52	1,006	..	645	475	1,120
Total	49	7,365	2,298	14,752	3,993	24,351	4,106	28,457

**COLLEGES OF ADVANCED EDUCATION: STUDENTS BY TYPE OF ENROLMENT
LEVEL OF COURSE AND FIELD OF STUDY, 1973—continued**

Field of study	Degrees		Graduate Diploma	Diploma	Associate Diploma	Total		
	Master	Bachelor				Males	Females	Persons
EXTERNAL								
Agriculture	1	1	1	1	2
Applied sciences	4	..	57	42	88	15	103
Art and design	33	2	17	18	35
Building, surveying and architecture	2	1	3	6	12	..	12
Commercial and business studies	283	202	201	561	1,136	111	1,247
Engineering and technology	6	..	1	5	11	1	12
Liberal studies	196	3	251	..	246	204	450
Para-medical	322	131	191	322
Teacher education	2	96	920	..	354	664	1,018
Total	493	302	1,467	939	1,996	1,205	3,201

ALL STUDENTS

Agriculture . . . . .	..	95	20	986	158	1,100	159	1,259
Applied sciences	5	3,140	200	2,099	448	5,010	882	5,892
Art and design . . . . .	..	..	113	3,862	725	2,242	2,458	4,700
Building, surveying and architecture . . . . .	..	744	128	2,012	914	3,481	317	3,798
Commercial and business studies . . . . .	..	5,074	1,783	10,453	1,873	16,906	2,277	19,183
Engineering and technology	7	4,596	222	4,572	1,111	10,433	75	10,508
Liberal studies . . . . .	..	1,352	399	2,758	236	2,297	2,448	4,745
Music . . . . .	..	69	..	546	4	182	437	619
Para-medical	16	1,299	26	1,514	1,238	1,266	2,827	4,093
Teacher education	30	545	311	5,892	..	2,372	4,406	6,778
Total	58	16,914	3,202	34,694	6,707	45,289	16,286	61,575

**COLLEGES OF ADVANCED EDUCATION: STUDENTS WHO COMPLETED ADVANCED LEVEL
COURSES BY FIELD OF STUDY AND LEVEL OF COURSE, 1972**

Field of study	Degrees		Graduate Diploma	Diploma	Associate Diploma	Total		
	Master	Bachelor				Males	Females	Persons
Agriculture	26	18	253	65	337	25	362
Applied sciences	155	4	315	104	514	64	578
Art and design	533	88	292	329	621
Building, surveying and architecture	27	12	157	90	263	23	286
Commercial and business studies	94	106	681	178	858	201	1,059
Engineering and technology	265	12	803	230	1,307	3	1,310
Liberal studies	34	111	97	79	163	242
Music	16	2	87	..	22	83	105
Para-medical	1	185	13	447	148	167	627	794
Teacher education	159	699	114	302	670	972
Total	1	768	360	4,086	1,114	4,141	2,188	6,329

COLLEGES OF ADVANCED EDUCATION: TEACHING STAFF(a), BY FIELD OF TEACHING STATES(b) AND A.C.T., 1973

(Advanced level work of full-time and part-time academic and non-academic staff expressed in equivalent full-time units and rounded to whole numbers)

Field of teaching	N.S.W.	Vic.	S.A.	W.A.	Tas.	A.C.T.
FULL-TIME STAFF						
Agriculture	61	51	14	7	..	..
Applied sciences	129	355	40	76	15	45
Art and design	77	144	38	24	19	..
Building, surveying and architecture	21	51	31	33	7	..
Commercial and business studies	101	213	32	81	19	29
Engineering and technology	58	414	116	61	11	..
Liberal studies	48	242	78	56	1	40
Music	33	..	..	..	12	..
Para-medical	35	97	64	43	3	..
Teacher education	45	..	56	..	78	30
<i>Total—1973</i>	<i>(c)609</i>	<i>(c)1,569</i>	<i>469</i>	<i>381</i>	<i>(d)167</i>	<i>144</i>
1972	486	1,438	267	352	115	109
1971	339	1,293	249	309	88	77
1970	252	1,129	226	267	55	43
PART-TIME STAFF(e)						
Agriculture	2	1	..	..	..	..
Applied sciences	17	40	6	8	..	8
Art and design	63	21	8	4	5	..
Building, surveying and architecture	7	13	5	7	1	..
Commercial and business studies	20	26	5	17	3	13
Engineering and technology	11	29	5	9	6	..
Liberal studies	4	36	17	9	..	26
Music	30	..	..	..	7	..
Para-medical	22	13	18	4	..	..
Teacher education	4	..	7	..	6	6
<i>Total—1973</i>	<i>180</i>	<i>(c)227</i>	<i>70</i>	<i>58</i>	<i>28</i>	<i>53</i>
1972	100	215	46	59	27	31
1971	90	165	47	36	42	15
1970	93	228	31	32	34	12
ALL STAFF						
Agriculture	63	52	14	7	..	..
Applied sciences	146	395	47	84	15	53
Art and design	140	165	46	28	24	..
Building, surveying and architecture	28	64	36	40	8	..
Commercial and business studies	120	239	36	98	22	42
Engineering and technology	69	443	121	70	17	..
Liberal studies	51	277	95	65	1	66
Music	63	..	..	..	19	..
Para-medical	57	110	82	47	3	..
Teacher education	49	..	63	..	84	36
<i>Total—1973</i>	<i>(c)789</i>	<i>(c)1,796</i>	<i>539</i>	<i>439</i>	<i>(d)195</i>	<i>197</i>
1972	586	1,654	313	411	142	140
1971	428	1,458	297	345	130	92
1970	345	1,357	256	299	89	55

(a) Statistics for 1973 are not directly comparable with those of previous years because they include the teaching effort of non-academic staff. (b) Statistics comparable with other States are not available for Queensland. In 1973 the number of staff teaching at Queensland colleges of advanced education was 427 full-time and 600 part-time. These statistics include staff engaged in teaching in courses which were not at an advanced level. (c) Includes staff engaged in teaching external studies courses: 2 in New South Wales and 51 (3 full-time and 48 part-time) in Victoria. (d) Total includes 2 teaching staff not allocated to a field of teaching. (e) Part-time teaching staff expressed in equivalent full-time units.

Universities

Statistics of students commencing university courses, the number of students and teaching staff in 1973 and the number of degrees conferred and diplomas and certificates awarded are shown in the following tables. Statistics for 1969 refer to 30 June while those for 1970 to 1973 refer to 30 April except for degrees conferred and diplomas and certificates awarded which refer to 30 June 1973. Reference should also be made to the annual publications *University Statistics*, Parts 1 and 2 (13.7, 13.8) for further details.

UNIVERSITIES: STUDENTS COMMENCING HIGHER DOCTOR, PH.D., MASTER AND BACHELOR DEGREE COURSES FOR THE FIRST TIME IN ANY AUSTRALIAN UNIVERSITY, 1973

	Higher doctor degree courses	Ph.D. courses	Master degree courses	Bachelor degree courses	Total		
					Males	Females	Persons
New South Wales	11	270	1,315	11,670	8,567	4,699	13,266
Victoria	11	219	856	6,935	5,040	2,981	8,021
Queensland	5	128	306	3,280	2,217	1,502	3,719
South Australia	8	70	187	2,414	1,784	895	2,679
Western Australia . . . . .	..	60	162	2,028	1,408	842	2,250
Tasmania . . . . .	..	25	25	643	436	257	693
Australian Capital Territory . . . . .	..	130	75	938	682	461	1,143
Australia	35	902	2,926	27,908	20,134	11,637	31,771

UNIVERSITIES: FULL-TIME AND PART-TIME STUDENTS BY COURSE LEVEL AND SEX OF STUDENT(a), 1969 TO 1973(b)

Level of course	Males					Females				
	1969	1970	1971	1972	1973	1969	1970	1971	1972	1973
FULL-TIME										
Higher degree	3,756	3,963	4,293	4,295	4,220	703	783	889	973	1,041
Bachelor degree	42,469	45,374	47,311	48,851	49,389	18,634	21,137	23,863	25,698	26,962
Post-graduate diploma	911	968	1,148	1,544	(c)1,743	1,276	1,053	1,731	2,270	(c)2,223
Sub-graduate diploma	155	145	67	64	56	491	424	153	110	108
Certificate and other	682	486	686	676	(d)169	315	275	355	336	(d)205
Total	47,285	50,290	52,829	54,612	55,577	21,063	23,355	26,608	28,983	30,539
PART-TIME(e)										
Higher degree	5,073	5,685	6,032	6,429	6,967	1,032	1,118	1,255	1,360	1,549
Bachelor degree	21,556	22,118	22,232	21,902	21,967	8,079	8,728	9,238	9,849	10,750
Post-graduate diploma	1,437	1,492	1,561	1,532	(c)2,179	605	646	831	848	(c)1,050
Sub-graduate diploma	362	264	141	98	68	196	157	43	35	34
Certificate and other	2,302	2,164	2,183	2,146	(d)1,460	954	985	1,084	1,158	(d)986
Total	30,537	31,557	31,971	31,928	32,641	10,777	11,576	12,368	13,145	14,369
ALL STUDENTS										
Higher degree	8,829	9,648	10,325	10,724	11,187	1,735	1,901	2,144	2,333	2,590
Bachelor degree	64,025	67,492	69,543	70,753	71,356	26,713	29,865	33,101	35,547	37,712
Post-graduate diploma	2,348	2,460	2,709	3,076	(c)3,922	1,881	1,699	2,562	3,118	(c)3,273
Sub-graduate diploma	517	409	208	162	124	687	581	196	145	142
Certificate and other	2,984	2,650	2,869	2,822	(d)1,629	1,269	1,260	1,439	1,494	(d)1,191
Total	77,822	81,847	84,800	86,540	88,218	31,840	34,931	38,976	42,128	44,908

(a) Statistics for 1969 refer to the situation at 30 June; and those for other years refer to 30 April. (b) For the years 1969 to 1972, the components do not add to total students as students enrolled for two or more courses were included in each course for which they were enrolled. (c) Includes masters and other post-graduate preliminary and qualifying courses which in previous years have been included with 'Certificate and other'. (d) Excludes certificates; 'other' refers to single and miscellaneous subjects of university standard. See also footnote (c). (e) Includes external students.

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES AWARDED BY FIELD OF STUDY, YEAR ENDED 30 JUNE 1973

Field of study(a)	Degrees					Diplomas		Certificates
	Higher doctor	Ph. D.	Master	Bachelor	Total	Post-graduate	Sub-graduate	
Humanities . . . . .	..	56	203	6,192	6,451	..	..	5
Fine arts	1	1	8	98	108	..	12	..
Social and behavioural sciences . . . . .	..	56	100	446	602	158	92	..
Law . . . . .	..	1	25	911	937	2	..	22
Education . . . . .	..	14	131	650	795	3,356	62	2
Economics, commerce, government	2	34	232	2,529	2,797	78	11	347
Medicine	35	58	33	1,251	1,377	77	10	..
Dentistry . . . . .	..	1	19	179	199	4	..	..
Natural sciences	16	425	224	3,844	4,509	52	..	..
Engineering, technology . . . . .	..	105	277	1,424	1,806	53	..	28
Architecture . . . . .	..	3	28	388	419	50	5	..
Agriculture, forestry	2	51	56	436	545	64	..	..
Veterinary science . . . . .	..	9	17	177	203	3	..	..
Total—1973	56	814	1,353	18,525	20,748	3,897	192	404
1972	59	725	1,186	16,877	18,847	3,025	247	471
1971	59	658	1,067	14,994	16,778	2,551	302	467
1970	54	609	888	13,484	15,035	2,324	328	550
1969	53	490	811	13,360	14,714	2,237	406	673

(a) Degrees conferred and diplomas and certificates awarded have been categorised into broad fields of study, e.g. 'Medicine' includes degrees conferred in optometry, pharmacy, surgery and medicine, etc., and diplomas awarded in public health and hospital pharmacy, etc.

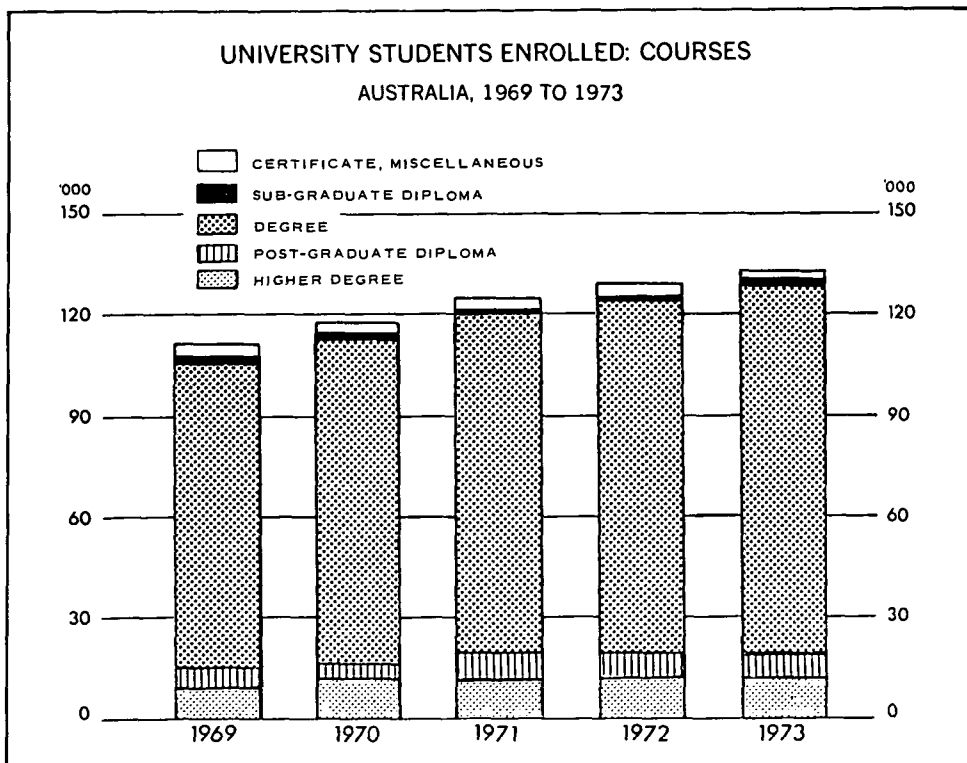


PLATE 43

UNIVERSITIES: TEACHING STAFF (a), BY FIELD OF TEACHING, 1973

Field of teaching	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
FULL-TIME STAFF								
Humanities	575	424	173	139	84	42	113	1,549
Fine arts	18	26	10	24	9	..	..	87
Social and behavioural sciences	325	169	89	64	55	22	41	765
Law	66	89	25	21	12	11	26	250
Education	192	127	54	31	27	12	..	443
Economics, commerce, government	370	212	114	75	54	31	41	897
Medicine	220	241	147	71	66	28	..	772
Dentistry	35	27	29	22	13	..	..	126
Natural sciences	933	517	322	269	147	82	115	2,382
Engineering, technology	441	172	95	39	49	18	..	813
Architecture	86	30	16	15	6	..	..	153
Agriculture, forestry	106	40	24	38	23	8	17	257
Veterinary science	44	34	53	..	..	..	..	130
Other(b)	24	..	40	..	..	..	..	64
Total—1973	3,436	2,108	1,190	806	543	253	352	8,687
1972	3,222	2,008	1,126	764	507	248	343	8,216
1971	3,029	1,936	1,081	749	495	220	327	7,835
1970	2,806	1,875	1,023	695	455	203	311	7,367
1969	2,640	1,817	980	657	429	194	302	7,018

PART-TIME STAFF(c)

Humanities	36	22	10	4	6	1	3	82
Fine arts	3	12	2	6	2	..	..	24
Social and behavioural sciences	32	7	4	4	6	..	3	58
Law	7	7	1	2	2	..	5	25
Education	24	15	4	2	3	1	..	49
Economics, commerce, government	27	18	2	4	7	1	2	61
Medicine	78	87	14	15	14	1	..	209
Dentistry	15	11	3	13	1	..	..	42
Natural sciences	158	157	25	72	33	12	7	464
Engineering, technology	50	31	14	7	4	1	..	107
Architecture	30	12	2	4	3	..	..	51
Agriculture, forestry	11	4	3	..	1	1	..	20
Veterinary science	2	1	5	..	..	..	..	8
Other(b)	8	..	7	..	..	..	2	17
Total—1973	481	385	93	134	82	19	22	1,216
1972	2,659	1,986	898	752	573	(d)60	98	7,026
1971	2,773	1,856	813	757	592	260	85	7,136
1970	2,668	1,579	885	846	570	212	85	6,845
1969	2,535	1,537	819	716	552	217	47	6,423

ALL STAFF

Humanities	611	446	183	143	90	43	116	1,632
Fine arts	21	38	11	30	11	..	..	110
Social and behavioural sciences	357	177	93	68	61	22	44	821
Law	73	96	26	23	14	11	31	275
Education	216	143	57	33	30	13	..	492
Economics, commerce, government	398	230	116	78	61	32	43	958
Medicine	298	327	161	86	80	29	..	981
Dentistry	50	38	32	35	14	..	..	168
Natural sciences	1,091	674	347	341	179	93	121	2,846
Engineering, technology	491	203	109	46	52	19	..	920
Architecture	116	42	18	19	9	..	..	205
Agriculture, forestry	117	44	27	38	24	9	17	277
Veterinary science	46	35	57	..	..	..	..	138
Other(b)	32	..	47	..	..	..	2	81
Total—1973	3,917	2,493	1,282	940	626	272	373	9,903
1972	5,881	3,993	2,024	1,515	1,080	(d)308	441	15,242
1971	5,802	3,792	1,894	1,506	1,087	479	412	14,971
1970	5,474	3,454	1,908	1,541	1,025	415	396	14,212
1969	5,175	3,354	1,799	1,373	981	411	349	13,442

(a) Excludes research only staff. (b) Includes staff teaching in the field of general studies and also a small number of staff unallocated to field of teaching, but excludes adult education teaching staff. For 1969 to 1972, they were included. (c) The conversion of part-time staff to equivalent full-time units is made on the following basis: lecturer—250 hours per annum, and tutor/demonstrator—700 hours per annum. Statistics prior to 1973 are shown in units of 100 teaching hours per annum.

Overseas students

The following table shows the number of private and sponsored overseas students in Australia for the year ended 30 June 1973. Statistics of *government sponsored overseas students* in Australia are compiled by the Department of Education. The Department of Labor and Immigration prepares statistics of overseas students admitted under the *Private Overseas Student Program*.

OVERSEAS STUDENTS: NUMBER OF PRIVATE AND SPONSORED STUDENTS BY LAST PLACE OF RESIDENCE, YEAR ENDED 30 JUNE 1973

<i>Last place of residence</i>	<i>Private</i>	<i>Sponsored</i>			<i>Other</i>	<i>Total</i>
		<i>Colombo Plan</i>	<i>Commonwealth Co-operation in Education</i>	<i>Home government</i>		
Europe	54	..	14	..	4	18
Africa	194	10	86	33	84	213
America	67	..	19	1	9	29
Asia—						
Burma	7	71	..	..	..	71
China (Taiwan)	74	..	..	..	..	..
Hong Kong	1,023	..	3	16	..	19
India	120	29	4	..	4	37
Indonesia	428	213	..	..	10	223
Japan	226	..	..	..	3	3
Khmer Republic	18	59	..	..	..	59
Laos	13	79	..	..	..	79
Malaysia	5,291	303	6	115	7	431
Pakistan	52	24	1	..	..	25
Philippines	340	20	..	..	4	24
Singapore	695	150	..	..	2	152
Sri Lanka	73	40	2	..	2	44
Thailand	326	189	..	..	26	215
Vietnam	74	277	..	..	..	277
Other Asia	55	118	..	..	2	120
<i>Total</i>	8,815	1,572	16	131	60	1,779
Oceania—						
Fiji	207	..	16	4	28	48
Nauru	106	..	..	..	..	..
New Caledonia	50	..	..	..	..	..
New Guinea	8	..	..	1	110	111
Solomon Islands	59	..	..	..	5	5
Tonga	68	..	21	2	16	39
Other Oceania	98	..	33	..	20	53
<i>Total</i>	596	..	70	7	179	256
Total overseas students	(a)9,728	1,582	205	172	336	2,295

(a) Includes two students for whom last place of residence was not stated.

Educational training in the Defence Force

The following table shows the number of students enrolled in training establishments for Service personnel.

SERVICE ESTABLISHMENTS PROVIDING EDUCATIONAL TRAINING: AUSTRALIA, 1973

<i>Establishment</i>	<i>Students enrolled</i>	<i>New entrants during year</i>	<i>Number completing course during year</i>
Staff colleges—			
Joint Services Staff College	61	61	61
Australian Staff College	71	71	71
Royal Australian Air Force Staff College	36	36	36
Officer cadet training establishments—			
Royal Australian Naval College	203	68	48
Royal Military College	136	136	62
Royal Australian Air Force Academy	107	35	18
Apprentice schools—			
Navy	607	249	159
Army	306	306	220
Air Force—			
Wagga Wagga	391	103	181
Laverton	106	49	25
Other—			
Royal Australian Navy Junior Recruit Training School	827	827	758
Royal Australian Air Force School of Languages	41	41	36

Student assistance schemes

The following table on student assistance schemes is taken from selected recent statistics published by the Department of Education.

STUDENT ASSISTANCE SCHEMES: AUSTRALIA

<i>Scheme</i>	<i>Number of students</i>		<i>Expenditure (\$'000)</i>	
	<i>1973</i>	<i>1974</i>	<i>1972-73</i>	<i>1973-74</i>
Postgraduate Awards	2,055	2,157	6,671	7,473
University Scholarships(a)	40,760	..	36,826	11,979
Advanced Education Scholarships(a)	10,569	..	5,397	3,211
Technical Scholarships Scheme(a)(c)	4,500	1,548	1,008	516
Tertiary Education Assistance Scheme . . . . .	..	75,000	..	34,867
Pre-school Teacher Education Scheme(c)	1,258	1,656	1,288	1,755
Secondary Scholarships(a)	9,671	86	4,084	968
Senior Secondary Scholarships(b)	24,542	48,000	4,579	9,763
Secondary Allowances Scheme . . . . .	..	9,000	..	1,164
Aboriginal Secondary Grants(c)	10,621	10,700	4,267	6,093
Aboriginal Study Grants(c)	1,113	1,079	631	905
Assistance for Isolated Children	17,882	20,000	2,588	8,188
Ex-servicemen's Vocational Training Scheme(c)	565	433	814	820

(a) No new awards granted in 1974. (b) No new awards to be granted after 1974. (c) 'Number of Students' refers to those receiving assistance at 30 June only (i.e., excludes a small number receiving assistance at other times during the period).

Expenditure on education

The statistics in this section are intended to give a broad indication of the extent and direction of both government and private effort in the field of education in recent years. They have been compiled in accordance with national accounting concepts and, apart from some minor revisions which have been incorporated where later information became available, are consistent with the estimates included in *Australian National Accounts: National Income and Expenditure, 1972-73* (7.1). These figures can therefore be related to other national accounts aggregates. For explanation of the relevant national accounting concepts, reference should be made to *Australian National Accounts, 1972-73* and also to *Public Authority Finance: Authorities of the Australian Government, 1972-73* (5.12), and *Public Authority Finance: States and Local Authorities, 1972-73* (5.43), from which figures included in this section have also been taken.

The emphasis given in this section to the outlays of the public sector in part reflects the relative importance of that sector in the provision of education services, but is also a reflection of lack of detailed information relating to educational activities in the private sector. Sufficient information is given, however, to show the order of magnitude of private sector spending, and also to show aggregate demand for education services and facilities.

Total expenditure on education

Total expenditure on education can be measured by adding to the outlay of the public sector the final expenditure on education which the private sector finances from its own resources, or alternatively by adding together the final expenditures of both sectors (i.e. consolidating out the public authority transfers, and also any (net) transactions in existing fixed assets).

The figure derived for total expenditure on education can be regarded as a measure of the aggregate supply of education services and facilities and can therefore be related to the supply of goods and services available from domestic production (i.e. gross domestic product). Final consumption expenditure and capital expenditure on education, by sector, can also be related to the gross domestic product. In addition, total expenditure on education can be related, by financing sector, to the gross domestic product. These relationships are shown in the following table.

AUSTRALIA: EXPENDITURE ON EDUCATION

(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73 ^p
Public sector—					
Final consumption expenditure	742	879	1,061	1,267	1,518
Expenditure on new fixed assets	205	226	254	298	350
<i>Final expenditure(1)</i>	947	1,104	1,315	1,566	1,869
Transfers to the private sector and expenditure on existing fixed assets (net)	62	76	90	102	125
<i>Outlay</i>	1,009	1,181	1,405	1,668	1,994
Private sector—					
Final consumption expenditure	145	158	172	197	218
Expenditure on new fixed assets	27	37	46	41	38
<i>Final expenditure (2)</i>	172	195	218	238	256
less transfers from the public sector and sales of existing fixed assets (net)	62	76	90	102	125
Expenditure financed from the private sector's own resources	109	118	127	135	131
Total expenditure on education (1) + (2)	1,118	1,299	1,532	1,803	2,124
Gross domestic product	26,972	29,733	32,656	36,202	40,983
Expenditure on education as percentage of					
Gross domestic product—	per cent	per cent	per cent	per cent	per cent
Final consumption expenditure—					
Public	2.8	3.0	3.2	3.5	3.7
Private	0.5	0.5	0.5	0.5	0.5
Expenditure on new fixed assets—					
Public	0.8	0.8	0.8	0.8	0.9
Private	0.1	0.1	0.1	0.1	0.1
Total expenditure	4.1	4.4	4.7	5.0	5.2
By financing sector—					
Public	3.7	4.0	4.3	4.6	4.9
Private	0.4	0.4	0.4	0.4	0.3

Private sector

Final expenditure on education by the private sector consists of private final consumption expenditure on education services, and expenditure on new fixed assets—mainly by private non-profit organisations, and financed in part by the grant from public authorities for private capital expenditure. These grants are treated as transfers rather than final expenditure of public authorities as with the current grants, and are recorded as a source of funds for capital formation in the national capital account. Private final consumption expenditure on education services is an estimate of fees paid by persons to government schools (mainly technical and agricultural colleges), fees and gifts to universities and school fees (other than boarding fees) paid to non-government schools, business colleges, etc., and is based largely on information relating to fees charged and enrolments at these institutions. Expenditure on such items as school books, uniforms, etc., and expenditure by parents associations on school equipment are included in categories other than education services (such as clothing, etc., newspapers, books, etc., and household durables). Private gross fixed capital expenditure in the field of education is estimated from statistics of the value of work done on new building and major additions to buildings of private educational institutions.

Public sector

The statistics which follow form part of a comprehensive statistical program to reclassify the transactions recorded in the 'conventional' accounts of all public authorities into a national accounting presentation. As part of this program, the outlay of public authorities is classified by *function*, so as to reveal the broad purposes for which the public authorities undertake expenditure programs. These statistics relate to those outlays which have been identified as being primarily designed to serve the purposes of 'education', broadly as defined in the United Nations System of National Accounts. Included, therefore, are outlays on administration and regulation of school systems and institutions of higher learning and educational research; on provision, inspection and support of primary and secondary schools, colleges and universities, technical training institutions, schools for the handicapped, adult education facilities, pre-school centres, etc.; on scholarships, etc.; and on subsidiary services such as transportation of school children and fare concessions. Expenditures on school medical and dental services and provision of free milk for school-children are not included, as these are regarded as primarily serving the purpose of health.

Apart from giving emphasis to the broad purposes of public sector outlays, a national accounting presentation of the transactions of public authorities is also designed to facilitate the study of their impact on the rest of the economy. In the following tables the outlays of the public authorities engaged in providing education services or financing their provision by other bodies, public or private, have accordingly been broken into broad categories of final expenditure on goods and services (i.e. final consumption expenditure, and expenditure on new fixed assets); capital financing items (e.g. net expenditure on existing assets); transfers to the private sector (cash benefits, grants for private capital expenditure) which become a source of finance for that sector's own final expenditures; and transfers between public authorities (Australian Government grants to the States).

Detailed analyses have not been prepared of the accounts of all public authorities providing or financing education services but methods of analysis have been adopted which reflect the net effect of the transactions of authorities not fully analysed (such as the State universities). Private non-profit organisations are covered by recording their final consumption expenditure as final expenditure by public authorities and persons: that is, the current grants to these organisations by public authorities are treated as public authorities' final expenditure, and fees, donations, etc. paid to them by persons are included in private final consumption expenditure. Current outlay of non-profit organisations is therefore covered, being approximately equal to their income from grants and fees. For reasons of practicality, grants for capital expenditure by public authorities to private non-profit organisations are treated as transfers, so that the capital expenditure of these organisations is wholly recorded in the private sector.

All public authorities

The outlay on education by all public authorities consists of the final expenditure on goods and services of the Australian Government and State authorities and transfers by these authorities to the private sector. These figures are shown in the following table, and are related to the total outlay (on all functions) by all public authorities in order to give an indication of the share of government resources devoted to education.

ALL PUBLIC AUTHORITIES: OUTLAY ON EDUCATION

(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73 ^p
Authorities of the Australian Government—					
Final consumption expenditure	34.8	40.9	54.9	63.9	82.4
Cash benefits to persons	33.5	38.0	46.4	54.3	73.2
Transfers overseas . . . . .	..	..	..	..	..
Grants for private capital purposes	0.8	1.4	2.1	1.4	1.2
Expenditure on new fixed assets	13.8	18.1	21.1	25.0	30.2
Expenditure on existing fixed assets (net) . . . . .	..	0.1	-0.4	-0.5	-0.3
Grants to the States—					
Current	50.0	73.6	99.1	115.9	149.6
Capital	55.4	71.2	74.0	86.0	105.6
<i>Total Australian Government</i>	<i>188.3</i>	<i>243.3</i>	<i>297.3</i>	<i>346.0</i>	<i>441.9</i>
State authorities—					
Final consumption expenditure	707.3	837.9	1,006.1	1,203.5	1,436.0
Cash benefits to persons	20.6	26.4	29.1	36.5	40.5
Grants for private capital purposes	7.2	9.7	11.6	8.8	9.3
Expenditure on new fixed assets	190.5	207.3	232.2	272.7	319.5
Expenditure on existing fixed assets (net)	0.2	0.8	1.1	1.6	1.1
<i>Total State</i>	<i>925.8</i>	<i>1,082.1</i>	<i>1,280.1</i>	<i>1,523.1</i>	<i>1,806.4</i>
<i>Less Grants from the Australian Government for education purposes</i>	<i>105.3</i>	<i>144.7</i>	<i>173.2</i>	<i>201.9</i>	<i>255.2</i>
Outlay financed from States' own resources and from non-specific Australian Government grants	820.5	937.4	1,106.9	1,321.2	1,551.2
Local authorities—					
Expenditure on new fixed assets	0.2	0.2	0.3	0.4	0.4
Total outlay on education	1,009.0	1,180.9	1,404.5	1,667.6	1,993.5
Total outlay on all purposes	8,636.5	9,625.5	10,519.2	11,916.5	13,364.5
Outlay on education as percentage of total outlay	per cent 11.7	per cent 12.3	per cent 13.4	per cent 14.0	per cent 14.9

Authorities of the Australian Government

Details of outlay on education by authorities of the Australian Government are given in the following table.

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: OUTLAY ON EDUCATION

(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73 ^p
General administration, regulation and research—					
Department of Education—					
Salaries etc., n.e.c.	2.3	3.3	4.4	5.4	7.4
Administration expenses, n.e.c.	1.4	1.8	2.6	2.7	3.4
Building and works, office equipment, etc.	0.1	0.1	0.1	..	0.1
Other	0.2	0.1	0.1	0.2	0.1
<i>Total general administration, etc.</i>	<i>4.0</i>	<i>5.3</i>	<i>7.1</i>	<i>8.4</i>	<i>10.9</i>
Transportation of students—					
School bus service—					
Australian Capital Territory	0.2	0.3	0.5	0.5	0.6
Northern Territory	0.2	0.2	0.3	0.3	0.4
<i>Total transportation</i>	<i>0.4</i>	<i>0.5</i>	<i>0.8</i>	<i>0.8</i>	<i>1.0</i>

AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: OUTLAY ON EDUCATION—*continued*
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73p
Primary and secondary education—					
Education services—					
Australian Capital Territory	9.6	11.9	13.0	14.7	20.5
Northern Territory	4.1	6.3	8.8	13.2	12.2
School broadcasts	0.9	0.9	1.0	1.1	1.2
Student assistance	6.6	6.7	6.8	6.9	8.7
Child migrant education program . . . . .	..	0.1	1.8	3.3	5.1
Assistance to isolated children . . . . .	..	..	..	..	2.6
Grants to independent schools—					
Australian Capital Territory	1.0	1.7	1.9	2.7	3.0
Northern Territory . . . . .	..	0.1	0.3	0.3	0.4
Grants to the States—					
Independent schools—Per capital grants . . . . .	..	12.2	24.3	29.6	41.0
Government schools—Capital grants . . . . .	..	..	..	6.7	13.3
School libraries	1.7	7.5	13.3	9.8	9.7
Science laboratories	11.8	12.9	13.1	10.8	10.0
Other	0.1	0.2	0.4	0.8	0.5
<i>Total primary and secondary</i>	<i>35.7</i>	<i>60.6</i>	<i>84.5</i>	<i>99.4</i>	<i>128.2</i>
Vocational Training—					
Canberra School of Music	0.1	0.1	0.1	0.1	0.2
Canberra Technical College	0.8	0.7	0.9	1.2	1.9
Darwin Community College . . . . .	..	..	..	..	2.6
Student assistance	1.1	1.2	1.1	1.0	1.0
Grants to the States—Technical training facilities	7.6	9.9	12.5	7.4	13.0
<i>Total vocational training</i>	<i>9.5</i>	<i>11.8</i>	<i>14.6</i>	<i>9.8</i>	<i>18.6</i>
University education—					
Australian Universities Commission	0.2	0.2	0.2	0.3	0.3
Australian National University	23.5	23.2	30.4	32.0	39.7
Student assistance—					
Undergraduate	16.3	18.2	22.5	28.1	36.8
Postgraduate	3.6	4.5	5.2	5.9	6.7
Grants to Australian National University residential colleges	0.4	0.2	1.0	0.1	0.1
School of Public Health and Tropical Medicine (Sydney University)	0.7	0.9	0.9	1.0	1.1
Grants to the States—Universities	62.6	67.7	75.2	90.6	107.3
Other	1.6	1.8	1.5	1.3	1.3
<i>Total university</i>	<i>108.9</i>	<i>116.7</i>	<i>136.9</i>	<i>159.3</i>	<i>193.3</i>
Other higher education—					
Australian Commission on Advanced Education . . . . .	..	..	..	0.1	0.4
Canberra College of Advanced Education	1.1	2.4	4.9	6.1	4.3
Australian Film and Television School . . . . .	..	..	..	..	0.1
Student assistance	1.0	1.6	2.8	3.6	5.4
Commonwealth Teaching Service scholarships . . . . .	..	..	..	0.1	0.4
Grants to the States—					
Colleges of Advanced Education	14.4	20.1	30.6	34.0	41.2
Teacher training colleges	6.3	13.2	2.5	11.2	16.4
Pre-school teacher training colleges	0.2	0.3	0.9	0.6	0.4
Pre-school teaching scholarships . . . . .	..	..	..	..	1.3
<i>Total other higher education</i>	<i>23.1</i>	<i>37.7</i>	<i>41.7</i>	<i>55.7</i>	<i>69.8</i>
Other education programs—					
Aboriginal education—					
Study grants	0.1	0.2	0.3	0.5	0.6
Secondary grants . . . . .	..	0.5	2.2	2.5	4.3
Grants to private non-profit organisations	0.2	0.4	0.4	0.4	0.5
Grants to the States	0.8	0.9	0.9	1.2	2.9
Other	1.8	4.5	3.2	3.3	6.8
Soldiers' children education scheme	3.2	3.2	3.4	3.6	3.6
Australian National University Centre for continuing education	0.1	0.1	0.1	0.1	0.1
Pre-school centres	0.5	0.9	0.9	1.1	1.4
Other . . . . .	..	..	0.2	..	..
<i>Total other programs</i>	<i>6.6</i>	<i>10.7</i>	<i>11.7</i>	<i>12.7</i>	<i>20.2</i>
Total outlay on education	188.3	243.3	297.3	346.0	441.9
<i>of which—</i>					
Current outlay	119.1	153.9	202.6	235.5	306.4
Capital outlay	69.2	89.4	94.8	110.5	135.5
Total outlay on all purposes	6,282.4	7,042.7	7,772.6	8,625.9	9,757.6
Outlay on education as a percentage of total outlay	per cent 3.0	per cent 3.5	per cent 3.8	per cent 4.0	per cent 4.5

As may be seen from the table, Australian Government outlays are directed largely towards financing outlays on education by the States and the private sector. Direct expenditure by the Australian Government relates mainly to the costs of administering its support programs and its own educational research activities, the provision of education services in the internal territories, expenditures of statutory bodies (i.e. the Australian National University, the Canberra College of Advanced Education, and the Australian Broadcasting Commission), expenditure on the education of Aborigines by the Northern Territory administration, and the costs of the child migrant education program.

Outlay on education in the internal territories

As mentioned previously, the Australian Government is responsible for the provision of education services in the Australian Capital Territory and the Northern Territory. Details of Australian Government outlay on education in the Territories are given below; further information may be found in Chapter 30, The Territories of Australia.

**AUTHORITIES OF THE AUSTRALIAN GOVERNMENT: OUTLAY ON
EDUCATION IN THE INTERNAL TERRITORIES, 1972-73**
(\$'000)

<i>Australian Capital Territory</i>	<i>Northern Territory</i>
Current outlay—	Current outlay—
Final consumption expenditure—	Final consumption expenditure—
Australian Capital Territory education services—	Northern Territory education services—
Salaries 1,586	Salaries 3,637
Government schools and colleges—	Government schools and colleges—
Pre-schools 683	Pre-schools 392
School transport 630	School transport 471
Repairs and maintenance 134	Repairs and maintenance 136
Payment to N.S.W. Department of Education 10,625	Payment to S.A. Department of Education, and teacher moving expenses 3,955
Canberra Technical College 1,675	Darwin Community College 246
School of Music 187	Other 1,642
Other 190	Non-government schools—
Non-government schools—	Student allowances 176
Student allowances 1,431	Assistance for buildings 128
Assistance for buildings 764	Total 10,783
Total 17,905	Less receipts—Vocational education and other 16
Less receipts—Vocational education and other 257	Total 10,767
Total 17,648	Aboriginal advancement 4,377
Canberra College of Advanced Education 3,605	Total, final consumption expenditure 15,144
Total, final consumption expenditure 21,253	Cash benefits to persons—
Cash benefits to persons—	Northern Territory Scholarships 180
University scholarships(a) 61	Grants for private capital expenditure—
Secondary school bursaries and textbook allowances(a) 83	Non-government schools, capital works 114
Total cash benefits 144	Total current outlay 15,438
Grants for private capital expenditure—	Capital outlay—
Non-government schools, capital works 854	Expenditure on new fixed assets—
Total current outlay 22,251	Northern Territory education services—
Capital outlay—	Government schools and colleges—
Expenditure on new fixed assets—	Pre-schools 180
Australian Capital Territory education services—	Primary schools 3,123
Government schools and colleges—	Secondary schools 2,497
Pre-schools 180	Canberra Technical College 56
Primary schools 3,123	Plant and equipment 272
Secondary schools 2,497	Furniture and fittings 148
Canberra Technical College 56	Other building and related expenditure
Plant and equipment 272	Total 6,276
Furniture and fittings 148	Canberra College of Advanced Education 2,708
Other building and related expenditure	Total capital outlay 8,984
Total 6,276	Total outlay(b) 31,235
Canberra College of Advanced Education 2,708	
Total capital outlay 8,984	
Total outlay(b) 31,235	

(a) Includes Commonwealth Secondary and Technical Scholarships.

(b) Excludes the Australian National University.

State and local authorities

The following table shows the outlay on education by State and local authorities, financed from their own resources (including general purpose grants from the Australian Government) and from Australian Government grants for education purposes.

STATE AND LOCAL AUTHORITIES: OUTLAY ON EDUCATION
(\$ million)

	1968-69	1969-70	1970-71	1971-72	1972-73p
Final consumption expenditure					
New South Wales	252.1	299.3	362.8	424.6	497.4
Victoria	216.8	256.5	303.1	358.5	445.2
Queensland	84.7	99.6	118.8	144.5	178.7
South Australia	70.9	81.4	98.7	124.1	142.8
Western Australia	56.6	70.9	85.6	109.3	122.0
Tasmania	26.4	30.2	37.2	42.5	49.9
<i>Total</i>	707.3	837.9	1,006.1	1,203.5	1,436.0
Expenditure on new fixed assets—					
New South Wales	72.3	73.6	77.3	94.5	110.3
Victoria	55.5	59.9	72.8	78.2	92.8
Queensland	23.7	25.7	28.8	35.0	37.4
South Australia	17.7	21.2	26.6	30.0	38.4
Western Australia	14.6	19.8	19.1	22.9	25.3
Tasmania	6.8	7.4	7.9	12.6	15.7
<i>Total</i>	190.5	207.3	232.2	272.7	319.5
Expenditure on existing fixed assets (net)	0.2	0.8	1.1	1.6	1.1
Cash benefits to persons	20.6	26.4	29.1	36.5	40.5
Grants for private capital purposes	7.2	9.7	11.6	8.8	9.3
Total outlay on education	925.8	1,082.1	1,280.1	1,523.1	1,806.4
<i>of which—</i>					
New South Wales	337.6	387.8	457.0	539.3	629.5
Victoria	278.3	323.5	383.1	444.7	546.3
Queensland	112.7	132.2	155.7	188.4	225.9
South Australia	89.9	106.8	130.8	159.5	186.5
Western Australia	73.8	93.6	107.8	135.7	152.4
Tasmania	33.8	38.6	46.0	56.0	66.3

Specific grants to the States for educational purposes

Financial assistance to the States specifically for education purposes constitutes the major item of outlay on education by the Australian Government. The following table summarises the allocation of the various categories of grants to the States for recent years. Subsequent tables show the allocation of these specific purpose grants to individual States for the same period.

GRANTS TO STATES FOR EDUCATIONAL PURPOSES
(*\$'000*)

	1968-69	1969-70	1970-71	1971-72	1972-73
GRANTS FOR RECURRENT PURPOSES					
Schools . . . . .	..	12,177	24,253	29,594	40,979
Technical Education . . . . .	..	..	..	..	..
Colleges of Advanced Education	6,282	10,658	15,743	18,372	26,655
Universities	43,534	50,435	58,878	67,596	80,826
Aboriginal Advancement	151	289	274	347	1,167
Child Migrant Education . . . . .	..	109	1,672	2,778	3,956
Educational Research . . . . .	..	..	96	236	275
<i>Total</i>	<i>49,967</i>	<i>73,668</i>	<i>100,916</i>	<i>118,923</i>	<i>153,858</i>
GRANTS FOR CAPITAL PURPOSES					
Schools	13,465	20,438	26,319	27,264	33,019
Technical Education	7,587	9,878	12,535	7,411	12,976
Colleges of Advanced Education	14,572	22,955	18,163	27,425	31,390
Universities	19,097	17,234	16,346	23,002	26,464
Aboriginal Advancement	656	655	672	867	1,720
Child Migrant Education . . . . .	..	..	..	..	..
<i>Total</i>	<i>55,377</i>	<i>71,160</i>	<i>74,035</i>	<i>85,969</i>	<i>105,569</i>
TOTAL GRANTS					
Schools	13,465	32,615	50,572	56,858	73,998
Technical Education	7,587	9,878	12,535	7,411	12,976
Colleges of Advanced Education	20,854	33,613	33,906	45,797	58,045
Universities	62,631	67,669	75,224	90,598	107,290
Aboriginal Advancement	807	944	946	1,214	2,887
Child Migrant Education . . . . .	..	109	1,672	2,778	3,956
Educational Research . . . . .	..	..	96	236	275
<i>Total</i>	<i>105,344</i>	<i>144,828</i>	<i>174,951</i>	<i>204,892</i>	<i>259,427</i>

TOTAL GRANTS TO STATES FOR SCHOOLS
(\\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Recurrent grants(a)—					
New South Wales	..	4,488	9,017	10,854	15,046
Victoria	..	3,952	7,832	9,655	13,337
Queensland	..	1,830	3,640	4,472	6,250
South Australia	..	759	1,526	1,889	2,529
Western Australia	..	862	1,682	2,064	2,903
Tasmania	..	286	556	660	914
Total	..	12,177	24,253	29,594	40,979
Capital grants—					
New South Wales	5,113	6,799	10,653	10,018	10,637
Victoria	3,555	6,262	6,745	7,587	9,486
Queensland	1,812	3,634	3,633	3,483	4,366
South Australia	1,415	1,830	2,545	2,629	3,805
Western Australia	1,089	1,517	1,700	2,296	3,017
Tasmania	481	396	1,043	1,251	1,708
Total	13,465	20,438	26,319	27,264	33,019
Total grants—					
New South Wales	5,113	11,287	19,670	20,872	25,683
Victoria	3,555	10,214	14,577	17,242	22,823
Queensland	1,812	5,464	7,273	7,955	10,616
South Australia	1,415	2,589	4,071	4,518	6,334
Western Australia	1,089	2,379	3,382	4,360	5,920
Tasmania	481	682	1,599	1,911	2,622
Total	13,465	32,615	50,572	56,858	73,998

(a) Recurrent grants are for non-government schools only.

TOTAL GRANTS TO STATES(a) FOR TECHNICAL EDUCATION
(\\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Capital grants—					
New South Wales	2,999	3,282	4,846	2,416	5,040
Victoria	1,550	3,000	3,912	1,500	3,350
Queensland	1,456	1,456	1,457	1,238	1,910
South Australia	870	807	1,191	1,130	1,130
Western Australia	437	957	804	747	1,166
Tasmania	275	376	325	380	380
Total	7,587	9,878	12,535	7,411	12,976

(a) There were no grants for recurrent purposes for technical education during this period.

TOTAL GRANTS TO STATES FOR COLLEGES OF ADVANCED EDUCATION AND
TEACHERS COLLEGES

(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Recurrent grants—					
New South Wales	697	834	3,478	3,713	5,525
Victoria	3,195	4,837	6,191	7,341	10,443
Queensland	633	1,300	1,567	1,860	2,906
South Australia	623	1,361	1,420	1,651	2,638
Western Australia	912	1,929	2,333	2,920	4,015
Tasmania	222	397	754	887	1,128
<i>Total</i>	<i>6,282</i>	<i>10,658</i>	<i>15,743</i>	<i>18,372</i>	<i>26,655</i>
Capital grants—					
New South Wales	2,927	9,000	4,639	7,381	9,691
Victoria	3,971	6,143	6,153	8,330	9,275
Queensland	3,080	2,291	1,878	3,776	3,806
South Australia	1,995	3,062	2,973	2,872	3,639
Western Australia	1,470	1,412	1,906	3,031	3,554
Tasmania	1,129	1,047	614	2,035	1,425
<i>Total</i>	<i>14,572</i>	<i>22,955</i>	<i>18,163</i>	<i>27,425</i>	<i>31,390</i>
Total grants—					
New South Wales	3,624	9,834	8,117	11,094	15,216
Victoria	7,166	10,980	12,344	15,671	19,718
Queensland	3,713	3,591	3,445	5,636	6,712
South Australia	2,618	4,423	4,393	4,523	6,277
Western Australia	2,382	3,341	4,239	5,951	7,569
Tasmania	1,351	1,444	1,368	2,922	2,533
<i>Total</i>	<i>20,854</i>	<i>33,613</i>	<i>33,906</i>	<i>45,797</i>	<i>58,045</i>

TOTAL GRANTS TO STATES FOR UNIVERSITIES

(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Recurrent grants—					
New South Wales	17,378	20,218	23,594	27,223	32,155
Victoria	12,108	13,960	16,238	18,586	21,896
Queensland	5,549	6,508	7,517	8,412	10,664
South Australia	4,351	4,964	5,811	6,676	7,898
Western Australia	2,833	3,281	3,900	4,594	5,683
Tasmania	1,315	1,504	1,818	2,105	2,530
<i>Total</i>	<i>43,534</i>	<i>50,435</i>	<i>58,878</i>	<i>67,596</i>	<i>80,826</i>
Capital grants—					
New South Wales	7,569	6,512	4,050	9,682	10,522
Victoria	7,072	4,495	5,990	6,669	7,327
Queensland	1,744	1,916	3,124	2,597	2,545
South Australia	1,076	1,506	2,369	1,818	2,697
Western Australia	734	2,048	384	1,571	2,531
Tasmania	902	757	429	665	842
<i>Total</i>	<i>19,097</i>	<i>17,234</i>	<i>16,346</i>	<i>23,002</i>	<i>26,464</i>
Total grants—					
New South Wales	24,947	26,730	27,644	36,905	42,677
Victoria	19,180	18,455	22,228	25,255	29,223
Queensland	7,293	8,424	10,641	11,009	13,209
South Australia	5,427	6,470	8,180	8,494	10,595
Western Australia	3,567	5,329	4,284	6,165	8,214
Tasmania	2,217	2,261	2,247	2,770	3,372
<i>Total</i>	<i>62,631</i>	<i>67,669</i>	<i>75,224</i>	<i>90,598</i>	<i>107,290</i>

TOTAL PAYMENTS TO STATES FOR EDUCATIONAL ADVANCEMENT OF ABORIGINES
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Recurrent payments—					
New South Wales	119	149	135	184	229
Victoria	22	65	65	83	167
Queensland . . . . .	..	41	13	..	293
South Australia	10	17	28	49	279
Western Australia . . . . .	..	10	26	26	193
Tasmania . . . . .	..	7	7	5	6
Total	151	289	274	347	1,167
Capital payments—					
New South Wales	46	5	11	20	98
Victoria	18	6	..	..	60
Queensland	325	369	327	441	981
South Australia	64	115	84	116	156
Western Australia	203	160	250	290	425
Tasmania . . . . .	..	..	..	..	..
Total	656	655	672	867	1,720
Total payments—					
New South Wales	165	154	146	204	327
Victoria	40	71	65	83	227
Queensland	325	410	340	441	1,274
South Australia	74	132	112	165	435
Western Australia	203	170	276	316	618
Tasmania . . . . .	..	7	7	5	6
Total	807	944	946	1,214	2,887

TOTAL GRANTS TO STATES^(a) FOR CHILD MIGRANT EDUCATION
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Recurrent grants—					
New South Wales	780	1,191	1,521
Victoria	86	667	1,158	1,819
Queensland	7	57	81	98
South Australia	87	169	326
Western Australia	16	62	150	138
Tasmania	20	28	53
Total	109	1,672	2,778	3,956

^(a) There were no capital grants for child migrant education during this period.

**TOTAL GRANTS TO STATES FOR RECURRENT EXPENDITURE
ON EDUCATIONAL RESEARCH**
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Recurrent grants—					
New South Wales	28	81	91
Victoria	32	81	87
Queensland	18	59	60
South Australia	10	8	13
Western Australia	8	7	17
Tasmania	7
Total	96	236	275

CHAPTER 20

EMPLOYMENT AND UNEMPLOYMENT

Further detail on subjects dealt with in this chapter is contained in the *Labour Report* (6.7) and other publications of this Bureau. For subjects relating to population censuses reference should be made to the series of mimeographed and printed publications listed in the *Publications of the Commonwealth Bureau of Census and Statistics* (1.8). Detailed information on the labour force and on employment and unemployment is contained in mimeographed bulletins *The Labour Force* (6.22, annual and 6.20, quarterly) and *Employment and Unemployment* (6.4, monthly). Current information is also available in the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5), and the *Quarterly Summary of Australian Statistics* (1.3). Preliminary estimates of unemployment and of the labour force are issued quarterly in *Unemployment* (6.35) and *The Labour Force* (6.32) respectively, and preliminary employment estimates are issued in a monthly statement *Employed Wage and Salary Earners* (6.12).

THE LABOUR FORCE

This chapter contains a number of series relating to the labour force and its components. The labour force comprises two categories of persons: those who are employed and those who are unemployed. In the first category are included employers, self-employed persons, wage and salary earners, and unpaid helpers. Comprehensive details for each State and Territory and for Australia as a whole in respect of persons in the labour force, classified according to industry, occupation and occupational status (i.e. whether employers, self-employed persons, wage and salary earners or unpaid helpers) and personal characteristics such as age, sex, marital status and birthplace, are obtained only at a general census of population. Information about the labour force questions in the population census of June 1971 and a table showing the industry and occupational status of the labour force are given on this and the following four pages.

In the periods between population censuses, estimates of the labour force for the whole of Australia are obtained through the population survey, which is carried out by means of personal interviews at a sample of households throughout Australia in February, May, August and November each year (see pages 693-705). The survey provides, in addition to particulars of the demographic composition of the labour force, broad estimates of occupational status, occupation, industry and hours of work.

Detailed industry estimates for each State and Territory are obtained only in respect of wage and salary earners, through a monthly collection from employers. These estimates, which exclude employees in agriculture and private domestic service, are based on benchmarks derived from the population census, and other data but they do not agree exactly with census figures at relevant dates, partly because of a different method of allocating employees to industries. Further information about estimates of employed wage and salary earners, and in particular the reason for differences between estimates and census data, is given on pages 720-1.

The population census

General

For the 1971 Census of Population and Housing the term 'labour force' is used in place of 'work force' in conformity with the Bureau's quarterly population survey and with international usage.

The labour force is defined as those persons aged 15 years and over who answered 'yes' to any of the following questions on the 1971 Census schedule:

- (a) Did this person have a full or part-time job, or business or farm of any kind last week?
- (b) Did this person do any work at all last week for payment or profit?
- (c) Was this person temporarily laid off by his employer without pay for the WHOLE of last week?
- (d) Did this person look for work last week?

Thus the labour force comprises those persons who worked, those who had a job from which they were temporarily absent, those who were temporarily laid off without pay for the whole of the reference week and those who did not work, did not have a job and were actively looking for work.

Persons helping but not receiving wages or salary who usually worked less than 15 hours a week are excluded from the labour force. Bonded trainees (including trainee teachers) and cadets engaged in full-time study at educational institutions are also excluded, even though such institutions were conducted by their employer.

The unemployed members of the labour force are those persons who answered 'No' to questions (a) and (b) and 'Yes' to question (d) and those who answered 'Yes' to question (a), 'No' to question (b) and 'Yes' to question (c). Thus the unemployed consist of those who did no work during the reference week and either looked for work (having no job) or were temporarily laid off from a job.

This approach conforms closely to the recommendations of the Eighth International Conference of Labour Statisticians held in Geneva in 1954 and to the approach used at the 1966 Census.

According to the definition any labour force activity during the previous week, however little results in the person being counted in the labour force.

Thus many persons whose main activity is not a labour force one (e.g. housewife, full-time student) are drawn into the labour force by virtue of part-time or occasional labour force activity in the previous week. Answers to the questions on usual major activity indicate that there were substantially more of such persons at the Census of 1971 than at the Census of 1966 and that they were predominantly females.

On the other hand, the definition excludes persons who may frequently or usually participate in the labour force but who in the previous week happened to have withdrawn from the labour force. Answers to the question on usual major activity indicate that there were substantially more of such persons at the 1971 Census than at the 1966 Census, especially among males.

A similar definition of the labour force is used in the quarterly population sample survey conducted by the Bureau by the method of personal interview. This survey is used to measure changes in the labour force from quarter to quarter in the intercensal period.

Evidence from post-enumeration surveys and pilot tests indicates that the personal interview approach tends to identify a larger number of persons as in the labour force than does the completion of the census questionnaire by the householder. This tendency has increased between the 1966 and 1971 Censuses.

The above considerations should be borne in mind if comparisons of the total labour force or labour force participation rates are made between the 1966 and 1971 Censuses, or between the 1971 Census and the 1971 labour force quarterly estimates, or if the 1971 Census figures for wage and salary earners are compared with estimates of employed wage and salary earners shown on pages 721-4.

Occupational status, employment status and labour force status

At the 1971 Census the terms *occupational status*, *employment status* and *labour force status* were used, and the relationship between these terms is illustrated by the following classifications.

<i>Occupational status</i>	<i>Employment status</i>	<i>Labour force status</i>
Employer	Employed	In the labour force
Self-employed		
Employee		
Helper		
Looking for first job	Unemployed	Not in the labour force
Other unemployed		
Not in the labour force	Not in the labour force	Not in the labour force

Prior to the 1971 Census unemployed persons were classified according to their last job held. For the 1971 Census however, details of occupation and industry were sought only in respect of *employed* persons.

Occupation

Occupation is defined as the type of work performed by an employed person and should not be confused with the type of productive activity, business or service carried out by the establishment in which a person works, e.g. a carpenter employed by a steel-making establishment would have the occupation of 'carpenter' and industry 'steel manufacture'; an electrician working at an oil refinery would have the occupation of 'electrician' but his industry would be that of 'oil refining' (*see Industry*).

In accordance with the International Standard Classifications of Occupations the structure of the Australian classification used for the 1971 and previous censuses is based primarily on the nature of the work done. The 1971 classification was prepared from the International Standard Classification of Occupations 1958 (revised 1966). The changes in the revised classification were given careful consideration in the preparation of the 1971 Australian classification. A number of new entries have been created to maintain convertibility to the international classification and others created to give more precise codes in certain occupation groups.

Industry

Industry is defined as the branch of productive activity, business or service carried out by the establishment in which a person is employed.

For the 1971 Census the classification of industry was based on the *Australian Standard Industrial Classification* Preliminary Edition (ASIC). For the purposes of the population census an 'undefined' category was added, where appropriate, to individual divisions, subdivisions and groups of the classification to facilitate the coding of imprecise or generalised descriptions of industrial activities on the census schedules.

At the 1966 and previous Censuses, industry was determined from the respondent's own stated description of the 'kind of industry, business or service' in which he worked. With the adoption of ASIC for the 1971 Census comparability with previous censuses is greatly impaired, not only because of changes in the classification itself but also because in 1971 the industry coding in general was not determined from the stated description. Instead the name and address of the establishment at which the respondent worked, in general, provided the industry code for employees of that establishment. However, in a number of cases, owing to deficient replies concerning name and address of employer or because the establishment had not been pre-coded for industry, recourse still had to be made in coding to the respondent's own description of the industry in which he worked.

**EMPLOYED POPULATION(a), INDUSTRY BY OCCUPATIONAL STATUS
AUSTRALIA, CENSUS 30 JUNE 1971**

Industry (division)	Occupational Status				Total	Proportion of total (per cent)
	Employer	Self- employed	Employee (on wage or salary)	Helper (unpaid)		
MALES						
Agriculture, forestry, fishing, and hunting	52,681	139,286	120,951	5,300	318,218	8.87
Mining	436	1,566	68,349	96	70,447	1.96
Manufacturing	14,818	11,315	876,910	231	903,274	25.19
Electricity, gas and water	36	28	83,685	1	83,750	2.34
Construction	31,074	40,516	320,024	194	391,808	10.92
Wholesale and retail trade	62,243	48,403	489,315	750	600,711	16.75
Transport and storage	10,025	24,111	204,131	132	238,399	6.65
Communication	29	102	78,184	1	78,316	2.18
Finance, insurance, real estate and business services	18,263	12,200	174,766	290	205,419	5.73
Public administration and defence . . . . .	..	..	214,219	..	214,219	5.97
Community services	11,526	3,350	207,249	1,331	223,456	6.23
Entertainment, recreation, restaurants, hotels and personal services	14,218	11,717	83,231	304	109,470	3.05
Other and not stated	2,443	7,828	137,658	1,110	149,039	4.16
Total males employed	217,792	300,422	3,058,672	9,640	3,586,526	100.00
FEMALES						
Agriculture, forestry, fishing, and hunting	11,888	27,182	19,916	9,203	68,189	4.12
Mining	52	84	5,416	24	5,576	0.34
Manufacturing	3,657	3,846	304,308	533	312,344	18.89
Electricity, gas and water	7	4	7,490	1	7,502	0.45
Construction	2,779	1,564	15,575	503	20,421	1.23
Wholesale and retail trade	24,879	25,954	333,214	3,330	387,377	23.42
Transport and storage	1,413	1,790	29,806	305	33,314	2.01
Communication	17	81	25,068	3	25,169	1.52
Finance, insurance, real estate and business services	2,058	3,733	151,897	311	157,999	9.55
Public administration and defence . . . . .	..	..	68,933	..	68,933	4.17
Community services	2,014	4,536	330,936	3,707	341,193	20.63
Entertainment, recreation, restaurants, hotels and personal services	10,391	7,110	139,280	1,260	158,041	9.56
Other and not stated	491	1,753	62,459	3,141	67,844	4.10
Total females employed	59,646	77,637	1,494,298	22,321	1,653,902	100.00
PERSONS						
Agriculture, forestry, fishing, and hunting	64,569	166,468	140,867	14,503	386,407	7.37
Mining	488	1,650	73,765	120	76,023	1.45
Manufacturing	18,475	15,161	1,181,218	764	1,215,618	23.20
Electricity, gas and water	43	32	91,175	2	91,252	1.74
Construction	33,853	42,080	335,599	697	412,229	7.87
Wholesale and retail trade	87,122	74,357	822,529	4,080	988,088	18.86
Transport and storage	11,438	25,901	233,937	437	271,713	5.18
Communication	46	183	103,252	4	103,485	1.97
Finance, insurance, real estate and business services	20,321	15,933	326,663	501	363,418	6.93
Public administration and defence . . . . .	..	..	283,152	..	283,152	5.40
Community services	13,540	7,886	538,185	5,038	564,649	10.77
Entertainment, recreation, restaurants, hotels and personal services	24,609	18,827	222,511	1,564	267,511	5.10
Other and not stated	2,934	9,581	200,117	4,251	216,883	4.14
Total persons employed	277,438	378,059	4,552,970	31,961	5,240,428	100.00

(a) Persons who, during the week prior to the census were unemployed or who were classified as 'not in the labour force', are not included in this table.

EMPLOYED POPULATION(a), BY OCCUPATION, AUSTRALIA: CENSUS 30 JUNE 1971

<i>Occupation (major group)</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Proportion of total (per cent)</i>
Professional, technical and related workers	309,329	227,179	536,508	10.24
Administrative, executive and managerial workers	306,842	42,032	348,874	6.66
Clerical workers	300,712	529,696	830,408	15.85
Sales workers	217,991	203,895	421,886	8.05
Farmers, fishermen, hunters, timber getters and related workers	341,128	62,778	403,906	7.71
Miners, quarrymen and related workers	33,797	90	33,887	0.65
Workers in transport and communication	251,033	39,757	290,790	5.55
Tradesmen, production-process workers and labourers, n.e.c.	1,456,850	223,841	1,680,691	32.07
Service, sport and recreation workers	144,371	243,191	387,562	7.39
Members of armed services	62,605	2,591	65,196	1.24
Occupation inadequately described or not stated	161,868	78,852	240,720	4.59
Total employed	3,586,526	1,653,902	5,240,428	100.00

(a) Persons who, during the week prior to the census, were unemployed or who were classified as 'not in the labour force', are not included in this table.

The population survey

The population survey is the general title given to the household sample survey carried out in February, May, August and November of each year in all States and Territories. Emphasis in the survey is placed on the collection of data on demographic and labour force characteristics, the principal survey component being referred to as the labour force survey. The remaining part of the population survey consists of supplementary collections which are carried out from time to time in conjunction with the labour force survey.

The population survey is based on a sample of dwellings selected by area sampling methods. Information is obtained each quarter from the occupants of selected dwellings by carefully chosen and specially trained interviewers during a four-week period on each occasion. Prior to the reselection of the sample in 1972 (using data from the 1971 Census of Population and Housing), the sample framework was extensively redesigned with a view to improving its efficiency, thus enabling economies to be made in the overall size of the sample. There are now about 30,000 households in the sample, representing two-thirds of one per cent of all households in Australia.

A description of the labour force survey and a selection of principal statistics obtained from it are given in this section. Data from supplementary surveys are published in mimeographed bulletins which are available on request. Results of the principal surveys held in the past have been published in earlier issues of the Year Book. Supplementary surveys for which results are contained in this chapter are leavers from schools, universities or other educational institutions, February 1974; child care, May 1973; multiple jobholding, August 1973; labour mobility, November 1972; superannuation, February 1974; and labour force experience during 1972. Reference to a survey covering ex-service personnel and their dependants conducted in November 1971 is made in Chapter 5, Repatriation, page 122.

The labour force survey

The labour force survey commenced in November 1960, and until November 1963 it was confined to the six State capital cities. The first survey for the whole of Australia was carried out in February 1964. Estimates are published quarterly in the mimeographed bulletin *The Labour Force* (6.20) and in the preliminary statements *The Labour Force* (6.32) and *Unemployment* (6.35). More comprehensive statistics have been published in special bulletins entitled *The Labour Force* (6.22), covering the period 1964 to 1968, and single years thereafter.

The survey includes all persons fifteen years of age and over (including full-blood Aborigines), except members of the permanent armed forces, national servicemen enlisted in the Regular Army Supplement and certain diplomatic personnel customarily excluded from census and estimated populations.

The classification used in the survey conforms closely to that recommended by the Eighth International Conference of Labour Statisticians held in Geneva in 1954. In this classification, the labour force category to which an individual is assigned depends on his actual activity (i.e. whether working, looking for work, etc.) during a specified week, known as 'survey week,' which is the week immediately preceding that in which the interview takes place. The interviews are carried out during a period of four weeks, so that there are four survey weeks in each of the months to which the survey relates. These survey weeks generally fall within the limits of the calendar month.

A person's activity during survey week is determined from answers given to a set of questions specially designed for this purpose. The principal categories appearing in the tables in this section are the employed and unemployed, who together constitute the labour force, and the remainder, who are classified as not in the labour force. Definitions of these categories are as follows:

- (i) *The labour force* comprises all persons who, during survey week, were employed or unemployed as defined in (ii) and (iii) below.
- (ii) *Employed persons* comprise all those who, during survey week,
 - (a) did any work for pay, profit, commission or payment in kind, in a job or business, or on a farm (including employees, employers and self-employed persons), or
 - (b) worked fifteen hours or more without pay in a family business (or farm), or
 - (c) had a job, business or farm, but were not at work because of illness, accident, leave, holiday, production hold-up due to bad weather, plant breakdown, etc., or because they were on strike.

A person who had a job but was temporarily laid off by his employer for the whole week without pay is excluded, and is classified in the tables as unemployed. A person who did some work during the week, however, before he either lost his job or was laid off, is classified as employed. A person who held more than one job is counted only once, in the job at which he worked most hours during survey week.

- (iii) *Unemployed persons* comprise all those who, during survey week, did no work at all, and who either,
 - (a) did not have a job or business and were actively looking for work (including those who stated that they would have looked for work if they had not been temporarily ill or believed no work was available, or had not already made definite arrangements to start work in a new job after survey week); or
 - (b) were laid off from their jobs without pay for the whole week.

A person who either lost his job or was laid off *during* survey week, but did some work at his job during that week, is classified as employed.

- (iv) *Persons not in the labour force* are all those who, during survey week, were not in the categories 'employed' or 'unemployed' as defined. This category therefore includes persons without a job, business or farm who were not actively looking for work, and who, during survey week, were either keeping house (unpaid), attending an educational institution (e.g. school or university), retired or voluntarily idle, permanently unable to work or inmates of institutions. A person who worked less than fifteen hours without pay in a family business during survey week is also classified as not in the labour force.

Figures of total population fifteen years of age and over for each sex are derived from the official population estimates, which in turn are based on results of population censuses. Figures of marital status and all labour force characteristics of these populations are derived from the sample survey data. For this and other reasons, including differences in timing, methods of collection (personal interview in the survey, self-enumeration in the census) and, in some cases, concepts and definitions, the survey estimates of marital status and labour force characteristics may not agree closely with the corresponding census figures.

Estimates of total population, revised on the basis of the 1971 Census of Population, indicate that the estimates that were used for the population surveys in mid-1971 were, overall, some 55,000 persons too high. The revised estimates classified by age, which are necessary to enable the revision of labour force estimates to be carried out, are not yet available. Caution should be exercised in using the estimates in this Year Book as indicators of long-term change. A preliminary assessment of the effect of the revised population estimates indicates that it will be necessary to reduce the level of the estimated labour force from mid-1971 onwards by about 28,000 persons (mostly males). Successively smaller revisions will be made to the estimates for earlier periods back to mid-1966.

Industry estimates published in Year Book No. 58 and previous issues were based on the Classification and Classified List of Industries used at the 1961 and 1966 population censuses. Industry is now coded by use of the Australian Standard Industrial Classification (ASIC). Industry estimates shown in this issue for May 1973 and May 1974, are, therefore, not strictly comparable with those shown in earlier issues.

Reliability of the estimates

Since the estimates which appear in the following tables are based on a sample, they may differ from the figures that would have been obtained from a complete census using the same questionnaires and procedures. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample, and not the whole population, was enumerated. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained from a comparable complete enumeration, and about nineteen chances in twenty that the difference will be less than two standard errors.

Space does not allow for the separate indication of the standard errors of all estimates in this section. A table of standard errors which is intended to be of general application is therefore given below:

The standard errors in the table are averages based on calculations for a limited number of surveys and are also averages over a wide range of labour force characteristics. These figures thus give not a precise measure but an indication of the magnitude of the standard error of any particular estimate for any particular survey. An example of the use of the table is as follows: if the estimate obtained from the sample is 100,000 and the standard error is 3 per cent of the estimate, i.e. 3,000, there are about two chances in three that the true figure is within the range 97,000 to 103,000 and about nineteen chances in twenty that this figure is within the range 94,000 to 106,000.

STANDARD ERRORS OF QUARTERLY ESTIMATES

Size of estimate (persons)	Approximate standard error of estimates	
	Persons	Percentage of estimate
4,000	800	20.0
5,000	900	18.0
10,000	1,200	12.0
20,000	1,600	8.0
50,000	2,300	4.6
100,000	3,000	3.0
200,000	4,000	2.0
500,000	6,000	1.2
1,000,000	8,000	0.8
2,000,000	10,000	0.5

The standard errors of estimates relating to agricultural employment are generally somewhat higher than the standard errors of other estimates of the same magnitude. Estimates for females also tend to have higher standard errors than estimates of equivalent size for males in similar employment categories.

The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the numerator and the size of the denominator. Percentages quoted in the following tables, and any other percentages calculated from figures shown, have generally somewhat lower proportional standard errors than have the estimates which form the numerators of the percentages, particularly where the percentages are large.

As the standard errors in the table show, the smaller the estimate the higher is the relative standard error. Very small estimates are thus subject to such high standard errors (relative to the size of the estimate) as to detract seriously from their value for most reasonable uses. In the following tables, estimates less than 4,000 have not been shown. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by interviewers and respondents. Inaccuracies of this kind are referred to as the non-sampling error, and they may occur in any enumeration, whether it be a full count or only a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and efficient operating procedures.

**CIVILIAN POPULATION 15 YEARS OF AGE AND OVER(a), BY EMPLOYMENT STATUS
AUSTRALIA**

May—	Employed(b)			Unemployed(b)		Total labour force(b)		Not in labour force(b) ('000)	Civilian population aged 15 and over (a) ('000)
	Agriculture ('000)	Other industries ('000)	Total ('000)	Number ('000)	Per cent of labour force	Number ('000)	Per cent of population(c)		
MALES									
1970	352.5	3,278.3	3,630.8	33.9	0.9	3,664.7	83.4	731.5	4,396.2
1971	341.9	3,342.2	3,684.1	44.0	1.2	3,728.1	82.9	767.1	4,495.2
1972	345.3	3,371.3	3,716.6	61.0	1.6	3,777.6	82.5	800.1	4,577.7
1973	309.4	3,453.7	3,763.1	50.7	1.3	3,813.8	82.0	839.0	4,652.8
1974	307.4	3,523.1	3,830.5	45.3	1.2	3,875.8	81.8	863.9	4,739.7
MARRIED WOMEN									
1970	49.9	912.6	962.5	22.0	2.2	984.5	33.5	1,958.4	2,943.0
1971	50.3	990.2	1,040.4	24.1	2.3	1,064.5	35.2	1,962.3	3,026.8
1972	51.7	1,012.8	1,064.5	27.8	2.5	1,092.3	35.2	2,011.8	3,104.1
1973	54.5	1,099.9	1,154.4	25.9	2.2	1,180.3	37.3	1,980.8	3,161.1
1974	48.4	1,195.2	1,243.6	25.6	2.0	1,269.2	39.4	1,949.4	3,218.6
OTHER FEMALES(d)									
1970	14.2	706.7	720.9	15.6	2.1	736.5	48.6	778.3	1,514.8
1971	11.6	706.5	718.0	14.6	2.0	732.6	47.9	797.8	1,530.4
1972	11.1	670.2	681.2	21.4	3.0	702.6	45.6	839.4	1,542.0
1973	10.5	672.9	683.4	23.6	3.3	707.0	45.1	859.1	1,566.1
1974	10.8	687.5	698.3	24.4	3.4	722.6	45.3	872.9	1,595.6
ALL FEMALES									
1970	64.1	1,619.2	1,683.4	37.7	2.2	1,721.1	38.6	2,736.7	4,457.8
1971	61.8	1,696.6	1,758.4	38.7	2.2	1,797.1	39.4	2,760.1	4,557.2
1972	62.8	1,683.0	1,745.8	49.2	2.7	1,794.9	38.6	2,851.2	4,646.1
1973	65.0	1,772.8	1,837.8	49.5	2.6	1,887.3	39.9	2,839.9	4,727.2
1974	59.2	1,882.7	1,941.9	50.0	2.5	1,991.8	41.4	2,822.3	4,814.1
PERSONS									
1970	416.7	4,897.5	5,314.2	71.5	1.3	5,385.8	60.8	3,468.2	8,854.0
1971	403.7	5,038.8	5,442.5	82.7	1.5	5,525.1	61.0	3,527.3	9,052.4
1972	408.1	5,054.3	5,462.4	110.2	2.0	5,572.6	60.4	3,651.2	9,223.8
1973	374.4	5,226.5	5,600.9	100.2	1.8	5,701.1	60.8	3,678.9	9,380.0
1974	366.6	5,405.8	5,772.4	95.3	1.6	5,867.7	61.4	3,686.2	9,553.8

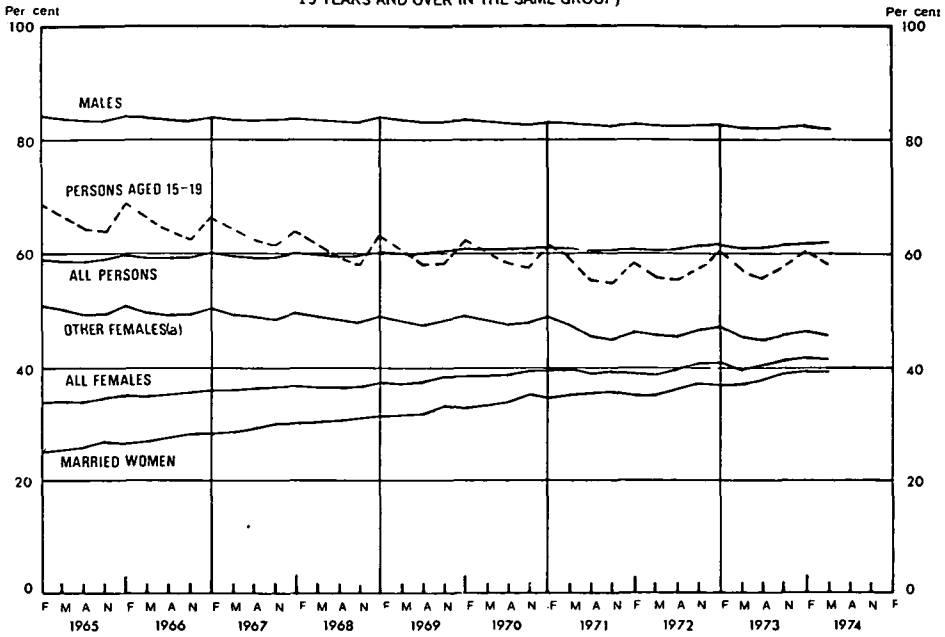
(a) For a note on persons excluded see explanatory notes on page 693. (b) For definitions see page 694. (c) The labour force in each group as a percentage of the civilian population aged 15 years and over in the same group (labour force participation rate). (d) Never married, widowed and divorced.

NOTE. Discontinuity indicated by horizontal line. At the 1971 population census, trainee teachers were for the first time classified as not in the labour force. They have been likewise excluded from the labour force estimates from August 1971. In consequence there is a break in the labour force series between May and August 1971, the numbers of males and females excluded being approximately 7,000 and 17,000 respectively.

Discontinuity between 1972 and 1973 was caused by a change in the basis of industry coding. Industry is now coded according to the Australian Standard Industrial Classification (ASIC). See page 695.

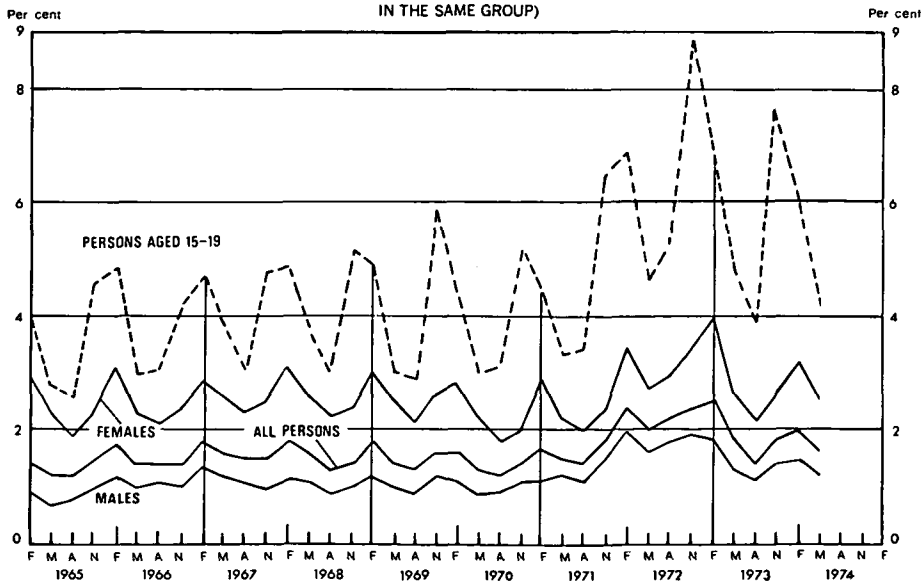
LABOUR FORCE PARTICIPATION RATES

(THE LABOUR FORCE IN EACH GROUP AS A PERCENTAGE OF THE CIVILIAN POPULATION AGED 15 YEARS AND OVER IN THE SAME GROUP)



UNEMPLOYMENT RATES

(THE UNEMPLOYED IN EACH GROUP AS A PERCENTAGE OF THE CIVILIAN LABOUR FORCE IN THE SAME GROUP)



(a) Never married, widowed and divorced.

CIVILIAN LABOUR FORCE(a): EMPLOYMENT STATUS, BIRTHPLACE AND YEAR OF ARRIVAL IN AUSTRALIA, MAY 1974

<i>Birthplace and year of arrival</i>	<i>Employed(b)</i> (<i>'000</i>)	<i>Unemployed(b)</i>		<i>Total labour force(b)</i>		
		<i>Number</i> (<i>'000</i>)	<i>Per cent of labour force</i>	<i>Number</i> (<i>'000</i>)	<i>Per cent of population(c)</i>	
MALES						
Born in Australia	2,773.6	30.2	1.1	2,803.8	81.8	
Born outside Australia	1,056.8	15.1	1.4	1,072.0	85.1	
Arrived before 1955	353.3	*	*	356.5	76.7	
1955 to 1961	228.9	*	*	230.8	90.7	
1962 to 1966	164.9	*	*	168.0	89.2	
1967 to 1972	254.5	5.2	2.0	259.7	91.1	
Jan. 1973 to May 1974	55.2	*	*	56.9	84.3	
MARRIED WOMEN						
Born in Australia	856.4	17.3	2.0	873.7	36.8	
Born outside Australia	387.2	8.3	2.1	395.5	47.4	
Arrived before 1955	99.9	*	*	101.0	38.2	
1955 to 1961	88.4	*	*	90.7	49.8	
1962 to 1966	68.0	*	*	69.3	50.1	
1967 to 1972	112.5	*	*	114.8	55.1	
Jan. 1973 to May 1974	18.5	*	*	19.7	48.1	
ALL FEMALES						
Born in Australia	1,433.6	37.2	2.5	1,470.8	40.6	
Born outside Australia	508.3	12.8	2.5	521.1	46.6	
Arrived before 1955	124.4	*	*	125.8	33.2	
1955 to 1961	113.6	*	*	117.1	50.8	
1962 to 1966	87.5	*	*	90.7	51.5	
1967 to 1972	150.7	*	*	153.9	56.8	
Jan. 1973 to May 1974	32.1	*	*	33.6	53.4	
PERSONS						
Born in Australia	4,207.2	67.4	1.6	4,274.6	60.6	
Born outside Australia	1,565.1	27.9	1.8	1,593.0	67.0	
Arrived before 1955	477.7	4.5	0.9	482.3	57.2	
1955 to 1961	342.5	5.4	1.5	347.9	71.7	
1962 to 1966	252.4	6.3	2.5	258.7	71.0	
1967 to 1972	405.2	8.4	2.0	413.6	74.4	
Jan. 1973 to May 1974	87.3	*	*	90.5	69.4	

(a) Aged 15 years and over. (b) For definitions see page 694. (c) See note (c) to table on page 696. Persons in institutions for whom, for the purpose of the survey, the institution was regarded as their usual place of residence, have been omitted from the civilian population since it is not practicable to ascertain the birthplace or the year of arrival in Australia for such persons.

* Estimates less than, or based on a figure less than 4,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

**CIVILIAN LABOUR FORCE(a), BY AGE AND MARITAL STATUS
AUSTRALIA, MAY 1974**

Age group (years)	Married			Not married(b)			Total		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
NUMBER ('000)									
15-19 . . .	7.9	24.2	32.1	350.5	302.0	652.6	358.4	326.2	684.6
20-24 . . .	204.7	188.6	393.3	314.1	160.6	474.7	518.8	349.3	868.0
25-34 . . .	782.2	355.6	1,137.8	181.6	82.2	263.8	963.8	437.8	1,401.6
35-44 . . .	683.6	333.2	1,016.8	70.6	46.3	116.9	754.1	379.5	1,133.6
45-54 . . .	638.9	269.1	908.0	78.1	61.6	139.8	717.1	330.7	1,047.8
55-59 . . .	240.2	66.4	306.6	32.9	33.6	66.5	273.1	100.0	373.0
60-64 . . .	174.0	23.8	197.8	22.8	20.9	43.7	196.8	44.7	241.5
65 and over . . .	74.7	8.4	83.1	19.1	15.3	34.4	93.8	23.6	117.4
Total . . .	2,806.2	1,269.2	4,075.4	1,069.6	722.6	1,792.2	3,875.8	1,991.8	5,867.7

PER CENT OF POPULATION(e)

15-19 . . .	87.4	44.3	50.4	59.3	57.6	58.5	59.7	56.3	58.1
20-24 . . .	97.4	52.7	69.2	87.4	82.5	85.7	91.1	63.2	77.3
25-34 . . .	98.7	41.9	69.3	92.8	80.3	88.5	97.5	46.0	72.3
35-44 . . .	98.4	49.7	74.4	87.6	70.5	79.9	97.3	51.5	75.0
45-54 . . .	96.3	42.7	70.2	82.4	58.8	70.0	94.6	45.0	70.2
55-59 . . .	90.8	27.4	60.5	79.4	45.2	57.4	89.3	31.5	59.9
60-64 . . .	76.3	13.4	48.7	60.4	21.1	31.9	74.0	16.1	44.5
65 and over . . .	21.8	3.5	14.3	14.3	3.6	6.1	19.7	3.6	10.3
Total . . .	87.5	39.4	63.4	69.7	45.3	57.3	81.8	41.4	61.4

(a) Aged 15 years and over. For definitions see page 694. (b) Never married, widowed and divorced. (c) The labour force in each group as a percentage of the civilian population in the same group.

**CIVILIAN LABOUR FORCE(a), BY INDUSTRY, AUSTRALIA, MAY 1974
('000)**

Industry group(b)	Males	Females	Persons
Agriculture	313.4	60.0	373.4
Manufacturing	1,014.0	370.4	1,384.4
Construction	508.8	28.7	537.5
Wholesale and retail trade	677.6	499.6	1,177.2
Transport and storage	269.8	38.5	308.3
Finance, insurance, real estate and business services	237.9	197.8	435.7
Community services(c)	273.2	450.9	724.0
Entertainment, hotels, personal services, etc.	141.6	215.8	357.4
Other industries	436.7	123.2	559.9
Looking for first job	*	6.9	9.8
Total	3,875.8	1,991.8	5,867.7

(a) Aged 15 years and over. For definitions see page 694. (b) The industry estimates are based on the Australian Standard Industrial Classification (ASIC). See page 695. (c) Comprises health, education, libraries, etc.; welfare and religious institutions; and other community services.

* Estimates less than 4,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

CIVILIAN LABOUR FORCE^(a), BY OCCUPATION, AUSTRALIA, MAY 1974
(^{'000})

<i>Occupation group</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
Professional and technical	407.2	286.4	693.5
Administrative, executive and managerial	324.3	38.5	362.8
Clerical	322.8	675.4	998.2
Sales	242.6	258.8	501.5
Farmers, fishermen, timber-getters, etc.	369.4	54.5	423.9
Transport and communication	296.1	51.1	347.1
Tradesmen, production-process workers and labourers, n.e.c. ^(b)	1,724.9	284.7	2,009.5
Service, sport and recreation	185.7	335.5	521.2
Looking for first job	*	6.9	9.8
Total	3,875.8	1,991.8	5,867.7

(a) Aged 15 years and over. For definitions see page 694. (b) Includes miners, quarrymen and related workers.

* Less than 4,000. See footnote * to previous table.

AVERAGE HOURS WORKED^(a) BY EMPLOYED PERSONS^(b): AUSTRALIA, MAY 1974

<i>Industry division^(c)</i>	<i>Males</i>	<i>Married women</i>	<i>Other females^(d)</i>	<i>All females</i>	<i>Persons</i>
Agriculture	51.9	29.0	35.1	30.1	48.4
Manufacturing	40.2	33.6	37.5	34.6	38.7
Construction	40.2	21.7	35.1	23.7	39.3
Wholesale and retail trade	42.3	31.7	33.2	32.3	38.1
Transport and storage	40.6	27.4	34.5	30.2	39.3
Finance, insurance, real estate and business services	38.6	29.1	34.5	31.9	35.6
Community services ^(e)	35.3	25.3	32.3	28.0	30.8
Entertainment, recreation, restaurants, hotels and personal services	41.1	27.2	30.2	28.2	33.3
Other industries	36.5	28.9	33.9	31.2	35.4
Total	40.7	29.5	33.6	31.0	37.4
Wage and salary earners	39.0	29.0	33.6	30.8	36.1
Other ^(f)	49.6	32.7	33.9	32.8	45.8
Full-time workers	41.6	37.4	37.0	37.2	40.4
Part-time workers	15.5	16.0	13.5	15.6	15.5

(a) Persons with jobs who did not work during survey week have been included in the calculation of average hours worked. When recording hours worked, fractions of an hour are disregarded. This procedure results in a slight lowering of the average hours figures. (b) Civilians aged 15 years and over. For definition see page 694. (c) The industry estimates are based on the Australian Standard Industrial Classification (ASIC). See page 695. (d) Never married, widowed and divorced. (e) Comprises health, education, libraries, etc.; welfare and religious institutions; and other community services. (f) Employers, self-employed and unpaid family helpers.

EMPLOYED PERSONS(a), BY HOURS WORKED(b), AUSTRALIA
(^{'000})

May—	Hours worked during survey week							Average hours worked(d)		
	0(c)	1-29	30-34	35-39	40	41-48	49 and over	Total	Full-time workers	All persons
MALES										
1970 . . .	217.3	165.3	157.0	320.6	1,449.3	547.1	774.3	3,630.8	..	41.2
1971 . . .	225.9	175.3	149.2	322.9	1,461.2	561.6	797.8	3,693.9	42.0	41.1
1972 . . .	224.3	155.1	128.3	316.9	1,620.6	513.4	758.0	3,716.6	41.7	40.9
1973 . . .	239.3	176.2	180.0	333.5	1,482.1	539.0	812.9	3,763.1	41.9	40.9
1974 . . .	263.7	198.4	142.1	352.3	1,436.9	588.6	848.4	3,830.5	41.6	40.7
MARRIED WOMEN										
1970 . . .	68.4	285.0	68.7	121.6	311.0	51.6	56.2	962.5	..	30.6
1971 . . .	86.0	299.8	74.6	125.2	341.7	55.3	57.7	1,040.4	..	30.2
1972 . . .	86.0	293.1	76.6	127.6	373.6	53.8	53.9	1,064.5	38.1	30.5
1973 . . .	103.4	344.6	87.9	142.8	362.7	55.0	57.9	1,154.4	37.3	29.4
1974 . . .	113.3	371.9	93.1	157.1	372.2	71.5	64.5	1,243.6	37.4	29.5
OTHER FEMALES(e)										
1970 . . .	51.2	72.9	43.6	153.7	315.9	56.2	27.4	720.9	..	34.5
1971 . . .	59.8	73.9	40.4	149.1	310.0	56.6	28.1	718.0	..	33.9
1972 . . .	39.6	74.1	34.3	135.8	320.2	47.2	29.9	681.2	37.7	34.8
1973 . . .	46.5	82.6	41.4	143.9	295.5	45.1	28.5	683.4	36.7	33.9
1974 . . .	48.1	92.4	38.3	145.7	290.6	52.6	30.6	698.3	37.0	33.6
ALL FEMALES										
1970 . . .	119.7	357.8	112.3	275.3	626.9	107.8	83.6	1,683.4	..	32.2
1971 . . .	145.8	373.7	115.1	274.3	651.7	112.0	85.9	1,758.4	37.4	31.7
1972 . . .	125.6	367.3	111.0	263.3	693.8	101.0	83.8	1,745.8	37.9	32.2
1973 . . .	149.9	427.1	129.3	286.7	658.3	100.1	86.5	1,837.8	37.0	31.1
1974 . . .	161.4	464.3	131.4	302.7	662.8	124.1	95.1	1,941.9	37.2	31.0
PERSONS										
1970 . . .	336.9	523.1	269.3	595.9	2,076.2	654.9	857.9	5,314.2	..	38.3
1971 . . .	371.7	549.0	264.3	597.2	2,112.9	673.6	883.7	5,452.3	40.8	38.1
1972 . . .	349.9	522.3	239.3	580.3	2,314.4	614.5	841.8	5,462.4	40.7	38.1
1973 . . .	389.2	603.3	309.3	620.2	2,140.4	639.1	899.4	5,600.9	40.6	37.7
1974 . . .	425.1	662.7	273.6	655.1	2,099.7	712.7	943.5	5,772.4	40.4	37.4

(a) Civilians 15 years of age and over. For definitions see page 694. (b) Actual hours worked during survey week, not hours paid for. The figures may be affected by public holidays, leave, absenteeism; temporary absence from work due to sickness, accidents, and industrial disputes; and work stoppages due to bad weather, plant breakdown, etc. (c) Excludes persons laid off for the whole of survey week without pay; these persons are classified as unemployed. (d) Persons with jobs who did not work during survey week have been included in the calculation of average hours worked. When recording hours worked, fractions of an hour are disregarded. This procedure results in a slight lowering of the average hours figures. (e) Never married, widowed and divorced.

**EMPLOYED PERSONS(a) WHO WORKED LESS THAN 35 HOURS(b), BY REASON, AUSTRALIA
(^{'000})**

May—	<i>Usually work 35 hours or more</i>				<i>Usually work less than 35 hours</i>			
	<i>Reason for working less than 35 hours</i>			<i>Total</i>	<i>Reason for working less than 35 hours</i>			<i>Total</i>
	<i>Leave or holiday</i>	<i>Own illness or injury</i>	<i>Other reasons</i>		<i>Lack of work</i>	<i>Other reasons</i>		
MALES								
1970 . . .	261.1	93.3	61.0	415.4	7.2	117.0	124.2	
1971 . . .	281.2	90.0	53.0	424.2	10.5	115.6	126.1	
1972 . . .	264.5	89.6	43.0	397.0	10.5	100.1	110.6	
1973 . . .	336.4	95.9	34.1	466.4	10.3	118.9	129.2	
1974 . . .	290.6	117.1	60.8	468.5	5.7	130.0	135.7	
FEMALES								
1970 . . .	115.3	36.6	7.3	159.2	13.7	416.8	430.5	
1971 . . .	135.0	36.3	8.1	179.4	14.9	440.3	455.2	
1972 . . .	115.6	32.6	8.6	156.9	17.0	430.0	447.0	
1973 . . .	161.0	33.4	7.7	202.1	18.7	485.6	504.2	
1974 . . .	132.0	50.8	14.3	197.1	12.9	547.3	560.1	
PERSONS								
1970 . . .	376.5	129.9	68.2	574.6	20.9	533.8	554.8	
1971 . . .	416.2	126.3	61.1	603.6	25.4	555.9	581.3	
1972 . . .	380.1	122.2	51.6	553.9	27.5	530.0	557.5	
1973 . . .	497.4	129.3	41.8	668.4	28.9	604.4	633.4	
1974 . . .	422.6	167.9	75.1	665.6	18.6	677.2	695.8	

(a) Civilians 15 years of age and over. For definitions see page 694.

(b) See note (b) to previous table.

UNEMPLOYMENT RATES(a), STATE CAPITAL CITIES AND OTHER AREAS
(Per cent)

May—	State capital cities(b)			Other areas		
	Males	Females	Persons	Males	Females	Persons
1970	0.9	1.7	1.2	0.9	3.3	1.6
1971	1.2	1.8	1.4	1.2	2.9	1.7
1972	1.8	2.4	2.0	1.4	3.4	1.9
1973	1.2	2.1	1.6	1.5	3.6	2.1
1974	1.0	1.9	1.3	1.5	3.9	2.2

(a) The unemployed in each group as a percentage of the labour force in the same group. (b) The figures relate to persons residing within the boundaries of the relevant Statistical Divisions. Explanatory notes on the delimitation of urban boundaries are shown on pages 140-1. Maps showing the boundaries of the capital city Statistical Divisions were published in *Census of the Commonwealth of Australia, 30 June 1966—Field Count Statement No. 4*, and *Census of Population and Housing, 30 June 1971—Field Count Statement Nos 3 to 8*.

UNEMPLOYED PERSONS(a), AUSTRALIA

May—	Age (years)				Duration of unemployment(b)				Looking for—		Total ('000)
	15-19		20 and over		Under 2 weeks ('000)	2 and under 4 weeks ('000)	4 and under 13 weeks ('000)	13 weeks and over ('000)	Full-time work(c) ('000)	Part-time work(d) ('000)	
	Number unemployed ('000)	Per cent of labour force	Number unemployed ('000)	Per cent of labour force							
MALES											
1970	8.2	2.4	25.7	0.8	8.6	13.6	8.3	*	31.5	*	33.9
1971	12.0	3.4	32.0	0.9	7.5	17.7	13.7	5.1	41.5	*	44.0
1972	14.6	4.4	46.4	1.3	10.8	17.0	21.0	12.1	58.6	*	61.0
1973	14.5	4.2	36.2	1.0	9.4	15.8	16.1	9.4	45.1	5.6	50.7
1974	10.3	2.9	35.0	1.0	8.8	15.7	14.2	6.5	41.0	4.3	45.3
FEMALES											
1970	11.4	3.6	26.3	1.9	10.2	9.0	13.3	5.2	23.9	13.8	37.7
1971	10.1	3.1	28.6	1.9	9.3	11.3	11.6	6.4	26.7	11.9	38.7
1972	14.7	4.8	34.4	2.3	10.0	12.4	18.3	8.4	37.1	12.1	49.2
1973	16.3	5.2	33.2	2.1	11.2	13.6	15.0	9.7	33.1	16.3	49.5
1974	18.0	5.5	31.9	1.9	14.2	12.9	15.8	7.1	30.8	19.2	50.0
PERSONS											
1970	19.5	3.0	52.0	1.1	18.8	22.6	21.6	8.6	55.3	16.2	71.5
1971	22.1	3.3	60.6	1.2	16.8	29.0	25.3	11.5	68.3	14.4	82.7
1972	29.4	4.6	80.8	1.6	20.9	29.5	39.4	20.5	95.7	14.5	110.2
1973	30.8	4.7	69.4	1.4	20.6	29.4	31.1	19.1	78.3	21.9	100.2
1974	28.3	4.1	67.0	1.3	23.1	28.6	30.0	13.6	71.8	23.5	95.3

(a) Civilians 15 years of age and over. For definitions see page 694. (b) Period from the time the person began looking for work, or was laid off, to the end of survey week. (c) Includes persons laid off from full-time jobs. (d) Includes persons laid off from part-time jobs.

* Estimates less than 4,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

EMPLOYMENT AND UNEMPLOYMENT

UNEMPLOYED PERSONS(a), BY AVERAGE DURATION OF UNEMPLOYMENT(b),
AUSTRALIA, MAY 1974

(Weeks)

Age	Married		Other		All females	Persons
	Males	women	females(c)	females		
15-19 years	6.9	*	7.9	7.8	7.5	
20 years and over	8.4	6.5	7.9	6.8	7.6	
All unemployed persons	8.0	6.5	7.9	7.2	7.6	

(a) Civilians aged 15 years and over. For definition see page 694. (b) Periods of unemployment are recorded only in complete weeks; the averages shown are affected accordingly. (c) Never married, widowed and divorced.

* Based on a figure less than 4,000. See footnote * to page 703.

UNEMPLOYED PERSONS(a), BY AGE AND BIRTHPLACE, AUSTRALIA, MAY 1974

Age group (years)	Number unemployed ('000)			Per cent of labour force		
	Males	Females	Persons	Males	Females	Persons
BORN IN AUSTRALIA						
Total	30.2	37.2	67.4	1.1	2.5	1.6
15-19	7.6	15.8	23.4	2.5	5.7	4.0
20 and over	22.6	21.3	43.9	0.9	1.8	1.2
20-24	8.9	7.5	16.4	2.2	2.7	2.4
25-34	*	6.2	10.1	*	2.1	1.1
35 and over	9.8	7.6	17.4	0.7	1.2	0.9
BORN OUTSIDE AUSTRALIA						
Total	15.1	12.8	27.9	1.4	2.5	1.8
15-19	*	*	4.8	*	*	5.0
20 and over	12.5	10.6	23.1	1.2	2.2	1.5
20-24	*	*	4.9	*	*	2.7
25-34	4.4	*	8.2	1.5	*	1.9
35 and over	6.1	*	10.0	1.0	*	1.1

(a) Civilians aged 15 years and over. For definition see page 694.

* Less than or based on a figure less than 4,000. See footnote * page 703.

PERSONS NOT IN THE LABOUR FORCE, BY MAJOR ACTIVITY, AUSTRALIA
(^{'000})

May—	<i>Kept house</i>	<i>Went to school, etc.</i>	<i>Retired or voluntarily idle</i>	<i>Permanently unable to work</i>	<i>Institutionalised (a)</i>	<i>Total</i>
MALES						
1970	10.7	234.2	391.8	45.6	49.3	731.5
1971	13.9	246.5	415.1	36.5	55.3	767.3
1972	11.6	275.2	424.5	36.2	52.6	800.1
1973	9.7	269.0	462.1	41.6	56.7	839.0
1974	8.4	269.4	481.9	51.3	52.9	863.9
MARRIED WOMEN						
1970	1,919.2	*	22.0	*	10.4	1,958.4
1971	1,923.8	*	21.6	*	11.6	1,962.3
1972	1,969.2	4.4	21.3	*	13.1	2,011.8
1973	1,934.1	5.4	25.4	5.9	10.0	1,980.8
1974	1,901.4	8.3	26.7	4.8	8.2	1,949.4
OTHER FEMALES(b)						
1970	416.9	186.9	101.1	16.5	56.9	778.3
1971	436.7	193.8	103.4	13.4	50.4	797.8
1972	442.4	221.9	103.9	13.2	58.0	839.4
1973	445.3	223.4	114.8	18.2	57.5	859.1
1974	448.1	220.3	121.1	19.9	63.5	872.9
ALL FEMALES						
1970	2,336.1	190.3	123.1	19.9	67.3	2,736.7
1971	2,360.5	197.1	125.0	15.5	62.0	2,760.1
1972	2,411.6	226.3	125.1	17.0	71.2	2,851.2
1973	2,379.4	228.8	140.2	24.1	67.4	2,839.9
1974	2,349.5	228.6	147.8	24.8	71.7	2,822.3
PERSONS						
1970	2,346.8	424.4	514.9	65.5	116.6	3,468.2
1971	2,374.5	443.5	540.1	52.0	117.3	3,527.4
1972	2,423.2	501.5	549.6	53.2	123.7	3,651.2
1973	2,389.1	497.8	602.3	65.7	124.1	3,678.9
1974	2,357.9	497.9	629.8	76.1	124.6	3,686.2

(a) Comprises inmates of gaols, patients in hospitals, sanatoria, etc., for whom, for the purpose of the survey, the institution was regarded as their dwelling. (b) Never married, widowed and divorced.

* Less than 4,000. See footnote * on page 703.

NOTE. For an explanation of the discontinuity in the series (indicated by horizontal line), see NOTE on page 696.

Leavers from schools, universities or other educational institutions

Surveys based on the population survey sample (see page 693) have been carried out in February of each year since 1964 in order to obtain information about persons aged 15 to 24 who had attended full time at a school, university or other educational institution at some time during the previous year. Estimates for the years 1964 to 1973 have been published in previous issues of the Year Book. Estimates for February 1974 are shown below.

The main survey questions were designed to distinguish among persons who had attended full time at a school, university or other educational institution at some time in the previous year, those who were intending to return to full-time education and those who were not returning to full-time education, the latter being described in this section as 'leavers'.

The estimates relate to all persons in the age group 15 to 24 years, except members of the permanent armed forces and certain diplomatic personnel customarily excluded from census and estimated populations. Certain categories of persons covered by the survey were not asked the survey questions. These comprised persons who were patients in hospitals and sanatoria, or inmates of gaols, reformatories, etc., and for whom, for the purposes of this survey, the institution was regarded as their dwelling, and persons reported as permanently unable to work. An estimate of the total number of such persons is shown in the first table in this section.

All persons covered by the survey were asked questions about their occupational status and those in the labour force were further questioned about their occupation and industry. Occupational status is shown for 'leavers', but not for persons returning to full-time education. Although many of these latter persons were in the labour force at the time of the surveys, their numbers would not give a useful indication of the extent of vacation employment because, in the years 1971, 1972 and 1974, the 'survey week' extended from the second week in February to the first week in March. Hence, between the first and last survey weeks, the level of vacation jobholding would have decreased substantially.

For further details reference should be made to the periodic mimeographed bulletins *Survey of Leavers from Schools, Universities or Other Educational Institutions* (6.9).

**CIVILIANS AGED 15 TO 24 YEARS^(a), BY ATTENDANCE OR NON-ATTENDANCE FULL
TIME AT A SCHOOL, UNIVERSITY, ETC., IN THE PREVIOUS YEAR
AUSTRALIA, FEBRUARY 1974
(^{'000})**

	Males	Females	Persons
Attended school, university, etc., full time in previous year ^(b) —			
Returning to full-time education	283.3	246.9	530.2
Not returning to full-time education ('leavers')	119.4	109.9	229.4
Total	402.7	356.8	759.6
Did not attend school, university, etc., full time in previous year ^(b)	722.7	753.7	1,476.5
In hospitals, etc. ^(c)	12.1	*	15.8
Total persons aged 15 to 24 years	1,137.5	1,114.3	2,251.8

^(a) At the time of the survey. ^(b) Excludes some patients in hospitals and sanatoria and some inmates of gaols, reformatories, etc., at the time of the survey, and persons permanently unable to work. ^(c) Estimated numbers of persons within the scope of the survey for whom the hospital, sanatorium, gaol, reformatory, etc., was regarded as their dwelling, and persons who were reported as permanently unable to work. Particulars of attendance at schools, etc., were not obtained in respect of such persons.

* Estimates less than 4,000 are not published because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

**'LEAVERS'(a), BY STATE AND BY TIME OF LEAVING, AUSTRALIA
FEBRUARY, 1974
(^{'000})**

	<i>Persons aged 15-19 years</i>			<i>Persons aged 15-24 years</i>		
	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
New South Wales	37.4	33.7	71.1	44.6	40.0	84.6
Victoria	24.5	23.8	48.3	28.9	28.8	57.7
Queensland	15.7	14.9	30.6	17.3	17.3	34.6
South Australia	10.0	7.8	17.8	11.3	8.9	20.2
Western Australia	9.4	7.9	17.3	11.2	8.4	19.6
Tasmania	*	4.3	8.2	4.6	4.9	9.5
Australia(b)	102.2	93.1	195.3	119.4	109.9	229.4
Time of leaving—						
January-June 1973	11.5	9.2	20.7	12.9	10.2	23.1
July-October 1973	14.1	15.1	29.2	15.9	16.1	32.0
November 1973	44.4	41.4	85.8	54.2	50.9	105.1
December 1973(c)	32.2	27.5	59.7	36.5	32.8	69.3

(a) Persons aged 15 to 24 years inclusive at the time of the survey who had attended school, university, etc., full time during the previous year and who were not returning to full-time education. See also footnote (b) to previous table. (b) Includes the Northern Territory and the Australian Capital Territory. (c) Includes a small number of persons who left school, university, etc., in January or February 1974.

* Less than 4,000. See footnote * to table on page 706.

**'LEAVERS'(a) BY AGE, AUSTRALIA, FEBRUARY 1974
(^{'000})**

	<i>Age at time of leaving (years)</i>						<i>Total</i>
	<i>14</i>	<i>15</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19 and over</i>	
Attended school in 1973—							
Males	4.4	32.8	27.5	21.1	10.2	*	97.8
Females	*	31.0	25.9	12.3	5.9	*	79.0
Persons	7.6	63.8	53.4	33.3	16.1	*	176.8
Attended any educational institution(b) in 1973—							
Males	4.4	33.0	28.4	22.1	12.3	19.4	119.4
Females	*	32.0	30.4	16.9	8.9	18.6	109.9
Persons	7.6	64.9	58.7	39.0	21.2	38.0	229.4

(a) See note (a) to previous table. (b) Includes school.

* Less than 4,000. See footnote * to table on page 706.

PERSONS AGED 15 TO 24 YEARS IN FEBRUARY WHO ATTENDED FULL-TIME AT A SCHOOL, UNIVERSITY, ETC., IN THE PREVIOUS YEAR, BY TYPE OF INSTITUTION ATTENDED AND WHETHER OR NOT RETURNING TO FULL-TIME EDUCATION FEBRUARY 1974, AUSTRALIA
(*000)

	<i>Institution attended full-time in previous year</i>					<i>Total</i>
	<i>School</i>	<i>University</i>	<i>College of advanced education (b)</i>	<i>Technical college</i>	<i>Other</i>	
Males—						
Returning to full-time education in 1974(a)—						
At same type of institution	199.8	42.6	14.6	*	*	259.6
At different type of institution	22.6	*	*	*	*	23.7
Total	222.4	43.5	14.7	*	*	283.3
Not returning to full-time education in 1974 ('leavers')						
Total males	320.2	53.3	22.6	4.7	*	402.7
Females—						
Returning to full-time education in 1974(a)—						
At same type of institution	173.2	22.3	15.5	*	*	214.6
At different type of institution	30.3	*	*	*	*	32.3
Total	203.5	23.1	16.5	*	*	246.9
Not returning to full-time education in 1974 ('leavers')						
Total females	282.4	30.0	27.8	10.3	6.3	356.8
Persons—						
Returning to full-time education in 1974(a)—						
At same type of institution	373.0	64.9	30.1	*	*	474.2
At different type of institution	52.8	*	*	*	*	55.9
Total	425.8	66.6	31.2	*	*	530.2
Not returning to full-time education in 1974 ('leavers')						
Total persons	602.6	83.3	50.4	15.0	8.3	759.6

(a) As the survey is conducted in February, the estimates shown will partly reflect expectations as to the institution to be attended. (b) Includes teachers colleges.

* Less than 4,000. See footnote * to table on page 706.

Survey of multiple jobholding, August 1973

In August 1973 a survey, based on the quarterly population survey (see page 693), was conducted throughout Australia to obtain information about the nature and extent of multiple jobholding. The results of earlier surveys of multiple jobholding were given in Year Book No. 54, pages 1162-6 (August 1966 and 1967), and in Year Book No. 58, pages 707-10 (May 1971).

In these surveys persons were classified as *multiple jobholders* if, during the survey week, they:

- (a) worked in a second job or held a second job from which they were temporarily absent, and
 - (b) were employed in at least one of their jobs as a wage or salary earner. Work as an unpaid family helper or service in the reserve defence forces was not regarded as a second job.
- Persons who by nature of their employment worked for more than one employer, e.g. domestics, odd-job men, baby-sitters, etc., were not counted as multiple jobholders unless they also held another job of a different kind; nor were those who worked for more than one employer solely by reason of changing jobs during the survey week.

The table of standard errors and the comments on the reliability of estimates given on pages 695-6 are also applicable to this survey.

Further details of the survey were published in the mimeographed bulletin *Multiple Jobholding*, August 1973 (6.19).

MULTIPLE JOBHOLDERS, AUGUST 1973(a)

	Number ('000)			Per cent of labour force		
	Males	Females	Persons	Males	Females	Persons
Total	150.1	40.5	190.6	3.9	2.1	3.3
New South Wales	50.4	15.4	65.7	3.6	2.2	3.2
Victoria	37.9	9.5	47.3	3.6	1.8	3.0
Queensland	19.4	6.4	25.8	3.6	2.6	3.3
South Australia	19.8	4.3	24.1	5.6	2.3	4.5
Western Australia	13.5	*	16.6	4.4	*	3.6
Tasmania	5.7	*	6.7	5.0	*	4.0
Capital cities (b)	77.8	27.6	105.4	3.3	2.1	2.9
Other areas	72.3	12.9	85.1	4.9	2.1	4.1
Married	123.5	25.7	149.2	4.5	2.2	3.8
Not married(c)	26.6	14.8	41.4	2.5	2.1	2.3
Age (years)—						
15-19	5.8	5.2	11.1	1.7	1.7	1.7
20-24	21.7	7.1	28.8	4.3	2.1	3.4
25-34	50.6	11.8	62.5	5.4	2.9	4.6
35-44	36.7	8.5	45.2	4.9	2.3	4.0
45-54	24.1	5.2	29.3	3.4	1.6	2.8
55 and over	11.1	*	13.7	1.9	*	1.9
Born in Australia	119.1	31.5	150.6	4.3	2.2	3.6
Born outside Australia	31.0	9.0	40.0	2.9	1.8	2.6
United Kingdom and Ireland	11.7	4.4	16.0	3.0	2.3	2.8
Other countries	19.3	4.6	23.9	2.9	1.5	2.4
Arrived in Australia						
Before 1955	11.6	*	14.5	3.2	*	2.9
1955-1961	7.9	*	9.6	3.4	*	2.7
1962-1966	4.8	*	7.4	2.9	*	2.9
After 1966	6.7	*	8.5	2.2	*	1.8
Occupation of main job—						
Professional and technical	23.1	7.6	30.7	6.1	2.8	4.7
Administrative, executive and managerial	10.3	*	11.1	3.3	*	3.2
Clerical	14.5	14.0	28.4	4.8	2.2	3.1
Sales	12.8	4.7	17.5	5.1	1.9	3.5
Farmers, fishermen, timber-getters, etc.	19.7	*	20.8	5.2	*	4.7
Transport and communication	11.5	*	12.6	3.8	*	3.5
Tradesmen, production-process workers, etc. (d)	51.1	*	53.5	3.0	*	2.7
Service, sport and recreation	7.1	8.9	16.0	3.8	2.7	3.1
Occupation of second job—						
Professional and technical	22.7	7.5	30.2	..	..	..
Administrative, executive and managerial	6.7	*	7.5	..	..	..
Clerical	7.5	7.7	15.2	..	..	..
Sales	13.1	5.2	18.3	..	..	..
Farmers, fishermen, timber-getters, etc.	33.5	*	35.6	..	..	..
Transport and communication	10.9	*	12.1	..	..	..
Tradesmen, production-process workers, etc. (d)	22.1	*	23.4	..	..	..
Service, sport and recreation	33.5	14.8	48.3	..	..	..

(a) Non-institutional civilians aged 15 years and over. (b) Statistical Divisions of the six State capital cities as defined in *Census of Population and Housing*, 30 June 1971, see pages 140-1. (c) Never married, widowed and divorced. (d) Includes miners, quarrymen and related workers.

* Less than 4,000 or based on an estimate less than 4,000. Not published because subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

NOTE. State figures do not include the Northern Territory or the Australian Capital Territory. However, the estimates for the Territories are included in all other dissections.

Labour force experience during 1972

In February 1973 a survey, based on the quarterly population survey (see page 693), was conducted throughout Australia to obtain information about the labour force experience during 1972 of civilians aged fifteen years and over. Information obtained included the length of time (in 1972) during which persons were employed, unemployed or not in the labour force, the number of times they were unemployed and other aspects of labour force experience. The results of an earlier survey of labour force experience, conducted in February 1969, were given in Year Book No. 57, pages 695-700.

Each person was assigned to a labour force category for each week in 1972, on the basis of his actual activity (i.e. whether working, looking for work, etc.) during that week. The principal categories appearing in the tables are as follows:

- (i) *Persons in the labour force.* A person was classified as having been in the labour force during any week in which he was employed or unemployed as defined in (ii) and (iii) below.
- (ii) *Employed person.* A person was classified as having been employed during a week if, in that week, he: (a) did any work for pay, profit, commission or payment in kind, in a job or business, or on a farm (including employees, employers and self-employed persons), or (b) worked fifteen hours or more without pay in a family business (or farm), or (c) had a job, business or farm, but was on paid leave (including sick leave).
- (iii) *Unemployed persons.* A person was classified as having been unemployed during a week if, in that week, he did not work at all, and either: (a) did not have a job or business and was looking for work, or (b) was laid off from his job without pay for the whole week.
- (iv) *Persons out of the labour force* are all those who, in any week, were not in the categories "employed" or "unemployed", as defined above. For the purposes of this survey a person who was on strike and who did no work during a week was classified as out of the labour force in that week.

A person was classified as having worked mostly full time in 1972 if the number of weeks in which he worked 35 hours or more (*full-time work*) exceeded or was equal to the number of weeks in which he worked less than 35 hours (*part-time work*). If the number of weeks worked full time was less than the number of weeks worked part time he was classified as having worked mostly part time. When absent on paid leave (including paid sick leave) he was classified according to the usual hours worked in the job from which he was absent.

The table of standard errors and the comments on the reliability of estimates given on pages 695-6 are also applicable to this survey.

Further details of the survey were published in the mimeographed bulletin *Labour Force Experience During 1972*, February 1973 (6.26).

CIVILIAN POPULATION(a), FEBRUARY 1973, BY EMPLOYMENT STATUS IN 1972
(^{'000})

<i>Employment status</i>	<i>Males</i>	<i>Married women</i>	<i>All females</i>	<i>Persons</i>
Civilian population in February 1973 (a)	4,576.7	3,127.3	4,650.8	9,227.5
In the labour force at some time during 1972—				
For the whole year	3,411.8	831.3	1,362.7	4,774.5
For part of the year	537.6	591.6	853.1	1,390.7
<i>Total</i>	3,949.4	1,422.9	2,215.7	6,165.1
Employed at some time during 1972—				
Mostly full-time	3,779.6	921.8	1,590.5	5,370.2
Mostly part-time	140.2	480.7	583.5	723.6
<i>Total</i>	3,919.8	1,402.5	2,174.0	6,093.8
Unemployed at some time during 1972—				
One period of unemployment	251.3	116.7	228.3	479.5
Two periods	40.1	10.1	25.3	65.4
Three periods	20.1	6.1	11.9	32.0
Four or more periods	27.3	5.8	10.5	37.7
<i>Total</i>	338.7	138.7	275.9	614.6
Out of the labour force for the whole of 1972	627.3	1,704.4	2,435.1	3,062.4

(a) Non-institutional civilians aged 15 years and over.

PERSONS EMPLOYED (a) AT SOME TIME DURING 1972, BY DURATION OF EMPLOYMENT IN THE YEAR
(^{'000})

<i>Duration of employment (weeks)</i>	<i>Males</i>	<i>Married women</i>	<i>All females</i>	<i>Persons</i>
1 and under 4	48.8	39.2	74.9	123.6
4 " " 13	96.6	120.8	185.9	282.6
13 " " 26	72.2	121.7	158.2	230.5
26 " " 39	126.5	150.9	205.4	331.9
39 " " 49	227.3	137.0	202.1	429.4
49 " " 52	99.1	29.5	51.0	150.1
52	3,249.2	803.5	1,296.5	4,545.7
Total	3,919.8	1,402.5	2,174.0	6,093.8

(a) See note (a) to table above.

PERSONS UNEMPLOYED (a) AT SOME TIME DURING 1972 BY DURATION OF UNEMPLOYMENT
(^{'000})

<i>Duration of unemployment (weeks)</i>	<i>Males</i>	<i>Married women</i>	<i>All females</i>	<i>Persons</i>
1 and under 2	52.0	34.4	64.7	116.7
2 " " 4	81.5	32.4	69.0	150.5
4 " " 8	84.6	31.6	65.1	149.8
8 " " 13	53.4	16.7	29.5	82.8
13 " " 26	40.0	12.5	25.7	65.7
26 and over	27.2	11.1	21.9	49.1
Total	338.7	138.7	275.9	614.6

(a) See note (a) to first table above.

Labour mobility

In November 1972 a survey, based on the quarterly population survey (see page 693), was conducted throughout Australia to obtain information about changes of employment or job location and other aspects of the mobility of the labour force.

For the purposes of the survey, a *job* was defined as: (i) employment as a wage or salary earner (or unpaid family helper) by a particular employer, in a particular locality; or (ii) self-employment (with or without employees) in a particular locality. Thus, a change of job may have involved a change of employer without a change of job locality; a change of locality without a change of employer; or a change in both employer and locality. For example, the movement of an employer's operations to premises in a different locality would entail a change of job for employees who moved to the new location. Promotion or transfer of an employee which involved a move to premises in a different locality would also constitute a change of job. In capital cities and major towns, each suburb was considered to be a different locality; otherwise, each town and each country area associated with a town constituted a separate locality. It should be noted, however, that for a person who worked at different sites for the same employer (for example, a construction worker), his base of operations (i.e. his employer's office, depot, yard, etc.) was considered to be his place of work.

A *temporary job* was defined as a job of a temporary nature (e.g. relieving for someone who was away) in which the occupant had worked less than 13 weeks at the time of the survey.

In this survey definitions of 'employed', 'unemployed', and therefore 'labour force status', were slightly changed. The definitions used were:

- (a) *The labour force* comprised all persons who, during survey week, were employed or unemployed as defined in (b) and (c) below.
- (b) *Employed persons* comprised all those who, during survey week, did any work for pay, profit, commission or payment in kind, in a job or business, or on a farm (including employees, employers and self-employed persons), or worked fifteen hours or more without pay in a family business (or farm), or had a job, business or farm, but were not at work because of illness, accident, leave, holiday or industrial dispute; or because of production hold-up due to bad weather, plant breakdown, etc., or were laid off from their jobs without pay.
A person who held more than one job was counted only once, in the job at which he worked most hours during survey week.
- (c) *Unemployed persons* comprised all those who, during survey week, did no work at all, and who did not have a job or business and were looking for work (including those who stated that they would have looked for work if they had not been temporarily ill or believed no work was available, or had not already made definite arrangements to start work in a new job after survey week).
- (d) *Person not in the labour force* were all those who, during survey week, were not in the categories 'employed' or 'unemployed' as defined. This category therefore included persons without a job, business or farm who were not actively looking for work, and who, during survey week, were either keeping house (unpaid), attending school, university, etc., retired or voluntarily idle, permanently unable to work or inmates of institutions. A person who worked less than fifteen hours without pay in a family business during survey week was also classified as not in the labour force.

The reason for changing the usual definitions was that interviewers had to be given reasonably simple criteria to judge whether a person was employed, unemployed or not in the labour force, so that they could ask the correct sequence of questions in the labour mobility survey. Thus, some persons, recorded in the labour force survey as looking for work but not taking active steps to find work (classified for that survey as not in the labour force) were, for the purposes of this survey, classified as unemployed. Similarly, some persons who were temporarily laid off by their employer for the whole of the survey week without pay were classified as employed in this survey, whereas in the labour force survey they are classified as unemployed.

The table of standard errors and the comments on the reliability of estimates given on pages 695-6 are also applicable to this survey.

Further details of the survey were published in the mimeographed bulletin *Labour Mobility*. November 1972 (Preliminary Statement) (6.34).

**NON-INSTITUTIONAL POPULATION(a): EMPLOYMENT STATUS AND NUMBER OF
JOBS(b) HELD IN PREVIOUS TWELVE MONTHS, NOVEMBER 1972**

Number of jobs(b) held in previous twelve months	Employed (^{'000})	Un- employed (^{'000})	Total labour force		Not in labour force (^{'000})	Total non- institutional population(a)		
			(^{'000})	(Per cent)		(^{'000})	(Per cent)	
MARRIED MEN								
None—looking for first job	..	*	*	*	..	*	*	
other . . . . .	..	*	*	*	298.1	301.0	9.7
One	2,310.6	12.3	2,322.9	84.3	41.9	2,364.8	76.3	
Two	329.9	5.1	335.0	12.2	*	338.2	10.9	
Three	63.2	*	64.4	2.3	*	64.7	2.1	
Four	13.2	*	13.5	0.5	*	13.7	0.4	
Five	5.5	*	5.5	0.2	*	5.5	0.2	
Six and over	9.7	*	10.4	0.4	*	11.1	0.4	
Total	2,732.2	22.9	2,755.1	100.0	344.4	3,099.5	100.0	
OTHER MALES(c)								
None—looking for first job	..	17.9	17.9	1.7	..	17.9	1.2	
other . . . . .	..	4.7	4.7	0.5	345.6	350.3	24.0
One	777.1	16.6	793.7	75.7	52.1	845.8	58.0	
Two	160.6	4.4	165.0	15.7	7.3	172.3	11.8	
Three	35.3	*	37.5	3.6	*	39.8	2.7	
Four	9.2	*	9.7	0.9	*	9.9	0.7	
Five	8.4	*	9.5	0.9	*	10.3	0.7	
Six and over	9.1	*	10.8	1.0	*	11.2	0.8	
Total	999.5	49.1	1,048.7	100.0	408.9	1,457.6	100.0	
ALL MALES								
None—looking for first job	..	18.4	18.4	0.5	..	18.4	0.4	
other . . . . .	..	7.6	7.6	0.2	643.7	651.3	14.3
One	3,087.7	28.9	3,116.6	81.9	94.0	3,210.6	70.5	
Two	490.5	9.6	500.0	13.2	10.5	510.6	11.2	
Three	98.5	*	101.8	2.7	*	104.5	2.3	
Four	22.4	*	23.2	0.6	*	23.6	0.5	
Five	13.8	*	15.0	0.4	*	15.8	0.4	
Six and over	18.9	*	21.2	0.6	*	22.3	0.5	
Total	3,731.7	72.1	3,803.8	100.0	753.3	4,557.1	100.0	

For footnote see end of table next page.

NON-INSTITUTIONAL POPULATION(a): EMPLOYMENT STATUS AND NUMBER OF JOBS(b) HELD IN PREVIOUS TWELVE MONTHS, NOVEMBER 1972—*continued*

Number of jobs(b) held in previous twelve months	Un-		Total labour force		Not in labour force (^{'000})	Total non- institutional population(a)		
	Employed (^{'000})	employed (^{'000})	(^{'000})	(Per cent)		(^{'000})	(Per cent)	
MARRIED WOMEN								
None—looking for first job other . . . . .	..	*	*	*	..	*	*
One	976.0	10.1	10.1	0.9	1,728.3	1,738.3	55.9	
Two	140.6	*	142.8	12.2	188.8	1,178.7	37.9	
Three	18.2	*	18.5	1.6	16.1	158.9	5.1	
Four and over	8.5	*	9.0	0.8	*	20.3	0.7	
<i>Total</i>	<i>1,143.3</i>	<i>29.0</i>	<i>1,172.4</i>	<i>100.0</i>	<i>1,937.8</i>	<i>3,110.1</i>	<i>100.0</i>	
OTHER FEMALES(c)								
None—looking for first job other . . . . .	..	17.4	17.4	2.4	..	17.4	1.2
One	546.9	*	558.0	76.3	727.5	731.1	48.2	
Two	114.4	*	117.3	16.0	48.8	606.8	40.0	
Three	23.2	*	24.4	3.3	6.5	123.8	8.2	
Four and over	9.5	*	10.5	1.4	*	25.4	1.7	
<i>Total</i>	<i>693.9</i>	<i>37.3</i>	<i>731.2</i>	<i>100.0</i>	<i>785.2</i>	<i>1,516.4</i>	<i>100.0</i>	
ALL FEMALES								
None—looking for first job other . . . . .	..	19.6	19.6	1.0	..	19.6	0.4
One	1,522.9	13.6	13.6	0.7	2,455.8	2,469.4	53.4	
Two	255.0	25.0	1,547.9	81.3	237.6	1,785.5	38.6	
Three	41.4	5.1	260.2	13.7	22.5	282.7	6.1	
Four	9.6	*	42.8	2.3	*	45.7	1.0	
Five and over	8.4	*	10.4	0.6	*	11.9	0.3	
<i>Total</i>	<i>1,837.3</i>	<i>66.3</i>	<i>1,903.6</i>	<i>100.0</i>	<i>2,723.0</i>	<i>4,626.6</i>	<i>100.0</i>	
ALL PERSONS								
None—looking for first job other . . . . .	..	38.0	38.0	0.7	..	38.0	0.4
One	4,610.6	21.2	21.2	0.4	3,099.5	3,120.7	34.0	
Two	745.5	53.9	4,664.4	81.7	331.6	4,996.1	54.4	
Three	139.9	14.7	760.2	13.3	33.1	793.2	8.6	
Four	31.9	4.8	144.7	2.5	5.5	150.2	1.6	
Five	17.4	*	33.6	0.6	*	35.6	0.4	
Six and over	23.7	*	18.7	0.3	*	20.0	0.2	
<i>Total</i>	<i>5,569.0</i>	<i>138.4</i>	<i>5,707.4</i>	<i>100.0</i>	<i>3,476.3</i>	<i>9,183.6</i>	<i>100.0</i>	

(a) Civilians aged 15 years and over. (b) For definition see page 712. (c) Never married, widowed and divorced.
 * Less than 4,000 or based on an estimate less than 4,000. Not published because subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

EMPLOYED PERSONS(a): OCCUPATION AND DURATION OF CURRENT JOB(b)
NOVEMBER 1972
(^{'000})

Duration of current job(b)	Professional and technical, etc.	Administrative, executive and managerial	Clerical	Sales	Farmers, fishermen, timber-getters, etc.	Transport and communication	Tradesmen, etc., n.e.c.(c)	Service, sport and recreation	Total
MALES									
Under 13 weeks—									
Temporary	4.7	*	5.5	7.5	15.5	6.6	39.5	5.0	87.3
Permanent	12.3	12.4	14.0	22.2	14.7	21.7	142.0	12.0	251.4
<i>Total under 13 weeks</i>	17.0	15.4	19.6	29.7	30.2	28.3	181.4	17.0	338.7
13 weeks and under 26 weeks	11.6	10.7	11.0	16.3	13.9	13.1	86.2	7.7	170.4
26 weeks and under 1 year	35.2	17.7	26.5	22.2	19.1	20.6	130.7	12.7	284.7
<i>Under 1 year</i>	63.8	43.8	57.1	68.2	63.2	62.0	398.3	37.4	793.8
1 year and under 2 years	55.9	35.3	45.0	40.6	29.2	29.6	231.6	30.0	497.3
2 years and under 3 years	40.6	26.6	33.3	25.9	20.9	26.2	160.8	20.0	354.3
3 years and under 4 years	31.2	18.7	24.3	14.9	18.3	21.9	116.1	11.1	256.6
4 years and under 5 years	22.1	14.5	16.5	10.3	16.0	12.4	83.6	11.0	186.3
5 years and over	158.1	162.4	127.0	82.6	229.5	135.5	680.1	68.3	1,643.4
<i>Total</i>	371.8	301.5	303.2	242.5	377.1	287.5	1,670.4	177.8	3,731.7
FEMALES									
Under 13 weeks—									
Temporary	6.6	*	18.1	15.8	4.5	*	8.2	18.3	73.6
Permanent	16.2	*	60.6	30.4	*	4.8	35.9	32.0	182.5
<i>Total under 13 weeks</i>	22.7	*	78.7	46.2	6.4	6.3	44.1	50.3	256.0
13 weeks and under 26 weeks	15.0	*	38.0	19.8	*	*	19.1	23.1	121.8
26 weeks and under 1 year	40.7	*	66.6	32.1	*	4.8	22.3	39.0	212.3
<i>Under 1 year</i>	78.4	5.9	183.3	98.1	12.1	14.4	85.5	112.4	590.2
1 year and under 2 years	48.3	5.4	110.2	51.4	4.7	10.2	42.7	61.6	334.5
2 years and under 3 years	36.7	*	88.8	20.9	4.5	6.9	28.6	31.6	221.5
3 years and under 4 years	20.2	*	50.7	20.8	*	*	18.6	23.3	143.8
4 years and under 5 years	15.7	*	32.8	11.1	*	*	12.2	14.7	92.9
5 years and over	59.7	19.7	127.0	49.4	41.4	13.5	70.9	72.8	454.4
<i>Total</i>	259.0	40.2	592.7	251.7	68.6	50.2	258.5	316.4	1,837.3
PERSONS									
Under 13 weeks—									
Temporary	11.2	*	23.7	23.3	20.0	8.1	47.6	23.3	160.8
Permanent	28.5	13.3	74.6	52.6	16.6	26.5	177.9	44.0	433.9
<i>Total under 13 weeks</i>	39.7	16.9	98.3	75.9	36.6	34.6	225.5	67.3	594.7
13 weeks and under 26 weeks	26.6	11.8	48.9	36.1	16.2	16.4	105.3	30.9	292.2
26 weeks and under 1 year	76.0	21.0	93.1	54.3	22.5	25.4	153.0	51.7	497.0
<i>Under 1 year</i>	142.3	49.7	240.3	166.3	75.3	76.4	483.8	149.9	1,384.0
1 year and under 2 years	104.2	40.7	155.2	92.0	33.9	39.8	274.3	91.6	831.8
2 years and under 3 years	77.3	30.0	122.1	46.9	25.4	33.1	189.4	51.5	575.8
3 years and under 4 years	51.4	22.4	74.9	35.7	22.0	25.0	134.7	34.4	400.4
4 years and under 5 years	37.8	16.7	49.4	21.4	18.2	14.4	95.7	25.7	279.2
5 years and over	217.8	182.1	254.0	132.0	270.8	149.0	751.0	141.1	2,097.8
<i>Total</i>	630.8	341.6	895.9	494.2	445.6	337.7	1,928.9	494.2	5,569.0

(a) See note (a) to table above. (b) For definition see page 712. (c) Includes miners and quarrymen, metal trades workers, building workers, and other tradesmen, production-process workers and labourers, n.e.c.

* Less than 4,000. See footnote to table on page 714.

Survey of child care, May 1973

In May 1973 a survey, based on the quarterly population survey (see page 693), was conducted throughout Australia in order to obtain, for persons who were in the labour force and who also had the responsibility for the care of children under twelve years of age, information about the arrangements they made to have their children cared for while they themselves were at work (including arrangements for after-school and school holiday care). The inquiry was directed mainly to working mothers, but males with the sole responsibility for children were also included.

For the purposes of the survey, a *child care centre* was defined as a registered or unregistered establishment, other than a private dwelling, where care was provided for five or more children below compulsory school age. Some other common names given to these centres are 'child minding centre', 'creche', 'cot room', 'day nursery' and 'nursery school'. Centres such as pre-schools and kindergartens were also included in this category. A *home care centre* was defined as one operated on a commercial basis in a private dwelling, in which the proprietor generally lived.

The *person responsible* for the care of a child under twelve years of age was defined as the person who, being a member of the household to which the child belonged, ranked highest in the following list:

- (a) Child's mother, step-mother, foster mother, female guardian
- (b) Child's father, step-father, foster father, male guardian
- (c) Any other person considered by the respondent as being responsible for the child.

The *labour force* comprises all persons who, during the survey week, were employed or unemployed, according to the definitions customarily used in the population survey. (For detailed definitions see page 694.)

The table of standard errors and the comments on the reliability of estimates given on pages 695-6 are also applicable to this survey.

Further details of the survey were published in the mimeographed bulletin *Child Care*, May 1973 (Preliminary Statement) (17.11). Results of an earlier survey of child care, conducted in May 1969, were published in the mimeographed bulletin *Child Care*, May 1969 (17.2).

PERSONS (a) RESPONSIBLE FOR CHILDREN UNDER 12 YEARS OF AGE, BY EMPLOYMENT STATUS AND NUMBER OF CHILDREN, MAY 1973
(^{'000})

Number of children under 12 years of age	In the labour force			Not in the labour force	Total
	Employed	Unemployed	Total		
One	242.9	7.8	250.7	359.3	610.0
Two	187.6	5.4	192.9	367.1	560.0
Three	70.0	*	72.1	187.8	259.9
Four or more	22.0	*	22.5	83.5	106.0
Total	522.5	15.8	(b)538.3	997.7	1,536.0

(a) Non-institutional civilians aged 15-59 years. (b) Comprises 9,700 males and 528,600 females.

* Less than 4,000. Not published because subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

PERSONS (a) IN THE LABOUR FORCE AND RESPONSIBLE FOR CHILDREN UNDER 12 YEARS OF AGE, BY NUMBER AND AGE OF CHILDREN, MAY 1973
(^{'000})

	Responsible for children under 6 years of age			Total	Not responsible for any children under 6	Total
	One child under 6	Two children under 6	Three or more children under 6			
Responsible for children aged 6-11—						
One child	59.4	16.4	*	76.9	151.5	228.4
Two children	27.6	6.9	*	35.5	79.5	115.0
Three or more children	7.6	*	*	9.5	25.6	35.1
Total	94.7	24.2	*	121.9	256.6	378.4
Not responsible for any children aged 6-11	99.2	54.1	6.5	159.8	..	159.8
Total	193.9	78.3	9.5	281.7	256.6	538.3

(a) See note (a) to previous table.

* Less than 4,000. See footnote* to previous table.

CHILDREN UNDER 6 YEARS OF AGE WHO WERE THE RESPONSIBILITY OF EMPLOYED PERSONS (a), BY TYPE OF CARE ARRANGEMENTS AND USUAL DAILY PERIOD OF ABSENCE OF RESPONSIBLE PERSON FROM HOME, MAY 1973
(^{'000})

Type of care arrangement	Usual daily period of absence of responsible person (hours)						Worked at home (c)	Total
	Under 5	5 and under 8	8 and under 9	9 and under 10	10 and over	Varied daily		
Nursery, creche, care centre, home care centre, etc. . . .	*	6.3	5.5	11.2	7.1	*	..	35.9
Child at school	4.6	11.4	5.2	7.5	4.7	5.8	..	39.2
At home with relatives(b) or friends	22.1	23.5	13.7	20.9	15.5	18.0	..	113.6
Relatives, not at child's home	4.4	8.0	6.5	10.6	12.8	7.9	..	50.2
Other, not at child's home	*	4.6	6.6	12.7	10.3	5.7	..	42.1
Person responsible worked at home(c) . . . . .	..	..	..	..	..	..	70.1	70.1
Other arrangements	4.0	*	*	*	*	4.7	..	14.5
Total	41.1	56.8	38.3	64.1	51.0	44.1	70.1	365.5

(a) See note (a) to first table above. (b) Includes brothers and sisters of the children. (c) Includes working in a shop or other business on the same premises in which the person lived.

* Less than 4,000. See footnote* to first table above.

Survey of superannuation, February 1974

In February 1974 a survey, based on the quarterly population survey (see page 693), was conducted throughout Australia to obtain information about employed persons covered by superannuation-type schemes and those not so covered, and about other persons who were receiving or had received benefits from such schemes.

A *superannuation, provident, pension or retirement scheme* is any fund, association, scheme or organisation set up for the purpose of providing financial cover for members when they retire.

A *superannuation pension* is a payment received on a regular basis (e.g. fortnightly) from any superannuation or similar scheme by the member or his or her dependants. A lump sum payment is an amount paid to a member of a scheme, or to his or her dependants, on ceasing employment or membership of the scheme. It does *not* include annual leave, sick leave or other payments on terminating employment, e.g. bonuses. It may be only a refund of the member's contributions with or without interest added, or it may include an employer's contribution.

For this survey the estimates related to all persons aged 15 years and over, except members of the permanent armed forces and certain diplomatic personnel customarily excluded from census and estimated populations. Persons who were patients in hospitals and sanatoria, and for whom, for the purposes of the survey, the institution was regarded as their dwelling, were included in the survey. Inmates of gaols, reformatories, etc. were excluded.

The table of standard errors and the comments on the reliability of estimates given on pages 695-6 are also applicable to this survey.

Further details of the survey were published in the mimeographed bulletin *Superannuation*, February 1974 (Preliminary Statement) (6.41).

**CIVILIAN POPULATION AGED 15 YEARS AND OVER(a): EMPLOYMENT
STATUS AND SUPERANNUATION COVER, FEBRUARY 1974
(^{'000})**

	<i>Males</i>	<i>Females</i>	<i>Persons</i>
EMPLOYED			
Total employed	3,811.2	1,936.9	5,748.1
<i>Covered in present job</i>	1,358.3	293.0	1,651.3
<i>Not covered in present job</i>	2,452.9	1,643.9	4,096.8
Receiving or had received benefit	289.6	157.7	447.2
From own previous job	288.9	151.2	440.1
From job of other person	*	6.5	7.2
No benefit received	2,163.3	1,486.2	3,649.5
Covered in previous job(b)	57.2	20.2	77.3
Not covered in previous job	1,084.1	782.4	1,866.5
No previous permanent or long-term job	1,022.0	683.7	1,705.7
UNEMPLOYED			
Total unemployed	56.3	64.0	120.2
<i>Receiving or had received benefit</i>	6.3	6.8	13.2
From own previous job	6.3	6.4	12.8
From job of other person	*	*	*
<i>No benefit received</i>	49.9	57.1	107.0
Covered in previous job(b)	*	*	*
Not covered in previous job	25.5	31.2	56.6
No permanent or long-term job	23.0	25.0	47.9
NOT IN THE LABOUR FORCE			
Total not in the labour force	798.3	2,767.1	3,565.5
<i>Receiving or had received benefit</i>	167.4	263.9	431.3
From own previous job	166.8	206.0	372.8
From job of other person	*	57.8	58.5
<i>No benefit received</i>	630.9	2,503.3	3,134.2
Covered in previous job(b)	9.0	31.2	40.2
Not covered in previous job	314.0	1,289.9	1,603.9
No permanent or long-term job	307.9	1,182.2	1,490.2
TOTAL			
Total civilian population aged 15 years and over	4,665.8	4,768.0	9,433.8
<i>Covered in present job</i>	1,358.3	293.0	1,651.3
<i>Not covered in present job or no present job</i>	3,307.5	4,475.0	7,782.5
Receiving or had received benefit	463.3	428.4	891.7
From own previous job	462.0	363.6	825.7
From job of other person	*	64.7	66.0
No benefit received	2,844.2	4,046.6	6,890.8
Covered in previous job(b)	67.6	52.3	120.0
Not covered in previous job	1,423.6	2,103.5	3,527.0
No permanent or long-term job (other than present job if any)	1,352.9	1,890.9	3,243.8

(a) For scope of the survey see page 717. (b) Persons who stated that they were covered in their previous job but had not received any benefit at the time of the survey.

* Less than 4,000. Not published because subject to sampling variability too high for most practical purposes. Although figures for these small components can be derived by subtraction, they should not be regarded as reliable.

PERSONS WHO WERE RECEIVING OR HAD RECEIVED BENEFIT FROM A SUPER-
ANNUATION-TYPE SCHEME(a): TYPE AND SOURCE OF BENEFIT, FEBRUARY 1974
(*000)

Type of benefit	Males		Females		Persons			
	Own job	Total (b)	Own job	Spouse's job	Total (c)	Own job	Spouse's job	Total (c)
Pension only	68.3	68.9	10.1	38.7	49.3	78.4	39.1	118.2
Lump sum only	372.7	373.4	351.8	19.1	371.6	724.4	19.7	745.0
Pension and lump sum	21.0	21.0	*	5.7	7.5	22.8	5.7	28.5
Total	462.0	463.3	363.6	63.5	428.4	825.7	64.5	891.7

(a) See note (a) to table on page 718. (b) Includes persons whose benefits were provided by another person's job.
(c) Includes persons whose benefits were provided by another person's job (other than spouse's).

* Less than 4,000. See footnote * to table on page 718.

NOTE. A person covered by superannuation, etc., in his present job was not asked whether he was also receiving or had received a benefit from a previous job. Such persons were excluded from the estimates in this table.

In the following table *manual occupations* comprise farmers, fishermen, hunters and timber-getters; miners and quarrymen; most transport and communication workers; tradesmen, production-process workers and labourers; and most service, sport and recreation workers.

Non-manual occupations comprise professional, technical, administrative, executive, managerial, clerical and sales workers, wool classers, certain transport and communication workers such as ships' officers, aircraft pilots, stationmasters, postmasters, etc., and photographers.

Government employees comprise not only administrative employees but also all other employees of government bodies (Australian, State, local and semi-government) on services such as railways, road transport, banks, post office, air transport, education (including universities), broadcasting, radio and television, police, public works, factories, departmental hospitals and institutions, migrant hostels, etc.

EMPLOYED PERSONS(a): SUPERANNUATION COVER, OCCUPATIONAL STATUS
AND TYPE OF OCCUPATION, FEBRUARY 1974

Occupational status and type of occupation	Males			Females			Persons		
	Covered	Not covered	Total	Covered	Not covered	Total	Covered	Not covered	Total
NUMBER ('000)									
Employers and self-employed	58.0	563.2	621.1	5.1	185.1	190.2	63.0	748.3	811.3
Wage and salary earners—									
Private	735.4	1,598.9	2,334.3	153.2	1,232.8	1,386.0	888.5	2,831.7	3,720.3
Government	565.0	290.8	855.8	134.8	226.0	360.8	699.8	516.8	1,216.5
Total	1,300.3	1,889.7	3,190.1	288.0	1,458.8	1,746.7	1,588.3	3,348.5	4,936.8
Total employed	1,358.3	2,452.9	3,811.2	293.0	1,643.9	1,936.9	1,651.3	4,096.8	5,748.1
Manual workers	640.4	1,866.3	2,506.7	41.9	647.1	689.0	682.3	2,513.4	3,195.7
Non-manual workers	717.9	586.6	1,304.5	251.2	996.8	1,248.0	969.1	1,583.4	2,552.5

PER CENT OF TOTAL

Employers and self-employed	9.3	90.7	100.0	2.7	97.3	100.0	7.8	92.2	100.0
Wage and salary earners—									
Private	31.5	68.5	100.0	11.1	88.9	100.0	23.9	76.1	100.0
Government	66.0	34.0	100.0	37.4	62.6	100.0	57.5	42.5	100.0
Total	40.8	59.2	100.0	16.5	83.5	100.0	32.2	67.8	100.0
Total employed	35.6	64.4	100.0	15.1	84.9	100.0	28.7	71.3	100.0
Manual workers	25.5	74.5	100.0	6.1	93.9	100.0	21.4	78.6	100.0
Non-manual workers	55.0	45.0	100.0	20.1	79.9	100.0	38.0	62.0	100.0

(a) Non-institutional civilians aged 15 years and over.

EMPLOYED WAGE AND SALARY EARNERS

The figures in this section generally relate only to civilian wage and salary earners, not the total labour force; they therefore exclude employers, self-employed persons and unpaid helpers. Also excluded, because of the inadequacy of current data, are wage and salary earners in agriculture and private domestic service. For the sake of brevity, wage and salary earners are referred to in the tables as 'employees'. Defence forces are included in the table on page 721.

The estimates, except those relating to government employees and defence forces, are based on comprehensive data (referred to herein as 'benchmarks') derived for the purpose from the population census of June 1966. Month-to-month changes shown by current data (*see below*) are linked to the benchmark data to derive monthly estimates, which are published in the Bulletin *Employment and Unemployment* (Reference No. 6.4).

Although the series measure reasonably well the short-term trends in employment in the defined field, they may be less reliable for longer-term measurement. There are conceptual differences between benchmark and current data, and changes in such factors as labour turnover, multiple jobholding and part-time working all affect the trend over longer periods.

Concepts and definitions

The concepts and definitions applicable to these estimates are those which were adopted at the 1966 population census and conform closely to the recommendations of the Eighth International Conference of Labour Statisticians. At the census the following questions were asked in respect of all persons fifteen years of age and over:

'Did the persons have a job or business of any kind last week (even though he may have been temporarily absent from it)?'

'Did the person do any work at all last week for payment or profit?'

Provided he had not been temporarily laid off by his employer without pay for the whole of the week, a person who answered 'yes' to either of these questions was classified as employed. Persons in this category who were stated to be 'working for wages or salary', except members of the defence forces, persons employed in agriculture or private domestic service, and crews of overseas ships, have been included in the benchmarks for the current series. For further details *see* Year Book No. 58, pages 691-2.

Current data supplied by reporting enterprises or establishments generally refer to persons on the payroll for the last pay-period in each month. Persons who are on paid leave or who work during part of the pay-period and are unemployed or on strike during the rest of the period are generally counted as employed. Those not shown on employers' payrolls because they are on leave without pay, on strike or stood down for the entire period are excluded.

Government employees comprise not only administrative employees, but also all other employees of government bodies (Australian, State, local and semi-government) on services such as railways, road transport, banks, post office, air transport, education (including universities), broadcasting, radio and T.V., police, public works, factories, departmental hospitals and institutions, etc.

The data needed to derive the estimates for periods subsequent to the benchmark date (June 1966) are obtained from three main sources, namely (a) current payroll tax returns; (b) current returns from government bodies; and (c) some other current returns of employment (e.g. for hospitals); the balance, i.e. unrecorded private employment, is estimated. At June 1966 recorded employment obtained from the foregoing sources accounted for about 85 per cent of the total number of employees in the industries covered, as determined by the census. Since then the percentage covered by direct collections has increased, and at June 1974 was estimated to be about 90 per cent.

Payroll tax returns are lodged at present by all employers paying more than \$400 a week in wages (other than certain Australian Government bodies, religious and benevolent institutions, public hospitals and other similar organisations specifically exempted under the Australian and State Pay-roll Tax Acts, 1971-1974).

Industry

The industry classification used throughout the series is that of the population census of June 1966. The estimated monthly changes are derived mainly from returns from employers relating to establishments or enterprises, but the June 1966 benchmark figures were derived from particulars recorded for individuals on population census schedules. The latter do not in all cases provide precise information to allow accurate coding of industry. Industry dissections of the census totals of wage and salary earners were therefore adjusted to be consistent as far as possible with industry coding at the establishment level. For this reason, and because crews of overseas ships were excluded from the benchmark figures, the estimates for June 1966 differ from those published in census bulletins which show particulars of the occupational status and industry of the population, and in other publications which contain population census results.

Adoption of new benchmarks and revision of current estimates

As results from each successive population census become available it is customary to derive from them new benchmarks for the monthly employment series, and to revise the published estimates for all periods subsequent to the date of the previous census. Indications are that if 1971 census totals were to be used as benchmarks for the employment series, the level of the monthly estimates would have to be significantly reduced. However, evidence from census post-enumeration surveys indicates that the filling in of census questionnaires by householders tends to identify a smaller number of persons as being in the labour force than do other methods of measurement (e.g. household surveys conducted by personal interview), and that components of the total labour force, such as employed wage and salary earners, tend to be affected in the same way. This tendency may have increased between the 1966 and 1971 censuses.

Comparison between census results and the monthly estimates of employed wage and salary earners is affected not only by the discrepancy referred to above but also by the accumulation of errors in the intercensal employment estimates and differences in the methods of industry classification. The Australian Standard Industrial Classification was adopted in coding the industry of employees covered by the 1971 population census, whereas in the monthly estimates the 1966 census classification is still used (see above).

It is intended that June 1971 benchmarks for the employment series will be established by the use of census and other relevant data, and the current series from July 1966 will be revised. The revision is expected to reduce the level of the current estimates.

In due course the estimates for periods prior to June 1966 will be revised, but on a basis comparable with that of the 1961 census benchmarks, the information needed to revise these benchmarks on the 1966 census basis not being available.

NOTE. At the June 1971 population census, trainee teachers (enrolled at government teachers colleges and in some cases enrolled also at other institutions) were for the first time classified as not in the labour force. The employment estimates for that month include approximately 7,000 male and 17,000 female trainees. For subsequent periods trainee teachers have been excluded from the estimates.

CIVILIAN EMPLOYEES AND DEFENCE FORCES: AUSTRALIA
EXCLUDING EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE
 ('000)

June—	Civilian employees				Total
	Private	Government(a)	Total	Defence Forces(b)	
MALES					
1970	2,084.3	803.3	2,887.6	81.5	2,969.1
1971	2,142.9	818.0	2,960.9	80.5	3,041.4
1972(c)	2,135.7	837.2	2,972.9	78.3	3,051.2
1973	(d)2,170.0	857.5	(d)3,027.5	71.0	(d)3,098.5
1974	2,253.5	866.2	3,119.7	64.7	3,184.4
FEMALES					
1970	1,177.4	275.4	1,452.8	2.7	1,455.5
1971	1,225.8	291.1	1,516.9	2.7	1,519.6
1972(c)	1,248.5	285.6	1,534.1	2.8	1,536.9
1973	1,324.1	302.7	1,626.8	3.1	1,629.9
1974	1,422.4	330.2	1,752.6	2.9	1,755.5
PERSONS					
1970	3,261.7	1,078.7	4,340.4	84.2	4,424.6
1971	3,368.7	1,109.1	4,477.8	83.2	4,561.0
1972(c)	3,384.2	1,122.8	4,507.0	81.1	4,588.1
1973	(d)3,494.1	1,160.2	(d)4,654.3	74.1	(d)4,728.4
1974	3,675.9	1,196.4	4,872.3	67.6	4,939.9

(a) Includes semi-government bodies. See explanation on page 723. (b) Permanent defence forces in Australia and overseas. (c) From July 1971 the estimates exclude trainee teachers, some of whom were classified as wage and salary earners for earlier periods. See NOTE above. (d) Affected by industrial disputes.

CIVILIAN EMPLOYEES: PRINCIPAL INDUSTRIES, AUSTRALIA

EXCLUDING DEFENCE FORCES AND EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE
(^{'000})

Industry group	June—				
	1970	1971	1972	1973	1974
MALES					
Mining and quarrying	65.2	69.4	69.8	70.0	71.4
Manufacturing	1,020.6	1,034.5	1,021.0	(a)1,022.4	1,048.5
Electricity, gas, water and sanitary services	105.2	106.7	108.2	109.1	110.1
Building and construction	351.3	361.4	365.8	366.7	371.0
Transport and storage	218.3	222.8	220.5	222.3	229.5
Communication	90.4	92.2	93.8	96.9	100.3
Finance and property	118.6	123.2	124.7	129.2	134.0
Wholesale and other commerce	208.0	209.7	209.5	212.0	217.6
Retail trade	209.9	214.7	221.8	234.6	245.7
Public authority activities (n.e.i.)	132.1	137.8	142.7	148.3	152.9
Health, hospitals, etc.	44.6	47.1	49.9	52.0	55.3
Education(b)	96.9	103.3	101.2	109.1	115.3
Amusement, hotels, cafes, personal service, etc.	108.4	114.7	119.4	126.4	133.1
Other(c)	118.2	123.3	124.6	128.5	135.0
<i>Total(b)</i>	<i>2,887.6</i>	<i>2,960.9</i>	<i>2,972.9</i>	<i>(a)3,027.5</i>	<i>3,119.7</i>
FEMALES					
Mining and quarrying	4.2	4.8	4.7	4.7	5.0
Manufacturing	355.9	357.4	348.0	362.0	389.2
Electricity, gas, water and sanitary services	8.2	8.5	8.5	8.7	8.9
Building and construction	16.0	17.6	18.2	19.6	21.3
Transport and storage	27.1	28.4	28.3	29.4	31.4
Communication	26.5	27.4	28.0	28.7	31.1
Finance and property	90.2	94.0	94.5	98.7	108.0
Wholesale and other commerce	83.9	86.7	86.2	88.8	95.3
Retail trade	229.1	235.5	246.6	269.3	288.5
Public authority activities (n.e.i.)	60.2	63.2	66.8	71.2	79.6
Health, hospitals, etc.	177.5	191.0	207.1	219.5	233.5
Education(b)	137.8	148.3	138.8	148.6	163.2
Amusement, hotels, cafes, personal service, etc.	153.3	165.0	167.8	179.0	191.7
Other(c)	83.0	89.0	90.8	98.6	105.9
<i>Total(b)</i>	<i>1,452.8</i>	<i>1,516.9</i>	<i>1,534.1</i>	<i>1,626.8</i>	<i>1,752.6</i>
PERSONS					
Mining and quarrying	69.4	74.2	74.5	74.7	76.4
Manufacturing	1,376.5	1,392.0	1,369.0	(a)1,384.5	1,437.7
Electricity, gas, water and sanitary services	113.4	115.1	116.6	117.8	119.0
Building and construction	367.3	379.0	384.0	386.3	392.2
Transport and storage	245.4	251.2	248.8	251.7	261.0
Communication	117.0	119.6	121.8	125.6	131.3
Finance and property	208.8	217.3	219.2	227.9	242.0
Wholesale and other commerce	291.9	296.5	295.6	300.8	312.9
Retail trade	438.9	450.2	468.4	503.9	534.2
Public authority activities (n.e.i.)	192.3	201.0	209.4	219.5	232.5
Health, hospitals, etc.	222.1	238.1	257.0	271.5	288.8
Education(b)	234.7	251.7	240.0	257.7	278.5
Amusement, hotels, cafes, personal service, etc.	261.7	279.7	287.1	305.4	324.8
Other(c)	201.2	212.3	215.5	227.1	240.8
<i>Total(b)</i>	<i>4,340.4</i>	<i>4,477.8</i>	<i>4,507.0</i>	<i>(a)4,654.3</i>	<i>4,872.3</i>

(a) Affected by industrial disputes. (b) From July 1971 the estimates exclude trainee teachers, some of whom were classified as wage and salary earners for earlier periods. See NOTE on page 721. (c) Comprises forestry, fishing and trapping; law, order and public safety; religion and social welfare; and other community and business services.

CIVILIAN EMPLOYEES

EXCLUDING DEFENCE FORCES AND EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE
(^{'000})

June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (a)	Aust.
MALES									
1970 . .	1,083.1	801.0	377.5	266.6	216.5	88.5	19.3	35.1	2,887.6
1971 . .	1,108.3	812.7	390.8	271.7	229.1	89.1	21.2	38.1	2,960.9
1972(b)	1,103.7	821.7	401.1	271.1	224.2	89.4	21.0	40.7	2,972.9
1973 . .	(c)1,118.5	(c)833.4	413.7	278.8	228.0	90.2	20.9	44.0	(c)3,027.5
1974 . .	1,142.2	857.0	432.9	287.2	237.7	92.5	22.5	47.7	3,119.7
FEMALES									
1970 . .	550.0	426.1	171.4	129.9	107.5	39.3	8.1	20.6	1,452.8
1971 . .	572.0	440.0	182.3	136.3	114.8	40.5	8.7	22.4	1,516.9
1972(b)	572.6	445.0	187.6	137.6	118.0	40.2	9.7	23.4	1,534.1
1973 . .	605.5	467.7	201.7	147.7	125.3	41.9	10.4	26.6	1,626.8
1974 . .	646.0	499.6	219.5	164.0	135.9	44.9	12.4	30.3	1,752.6
PERSONS									
1970 . .	1,633.1	1,227.1	548.9	396.5	324.0	127.8	27.4	55.7	4,340.4
1971 . .	1,680.3	1,252.7	573.1	408.0	343.9	129.6	29.9	60.5	4,477.8
1972(b)	1,676.3	1,266.7	588.7	408.7	342.2	129.6	30.7	64.1	4,507.0
1973 . .	(c)1,724.0	(c)1,301.1	615.4	426.5	353.3	132.1	31.3	70.6	(c)4,654.3
1974 . .	1,788.2	1,356.6	652.4	451.2	373.6	137.4	34.9	78.0	4,872.3

(a) Includes persons employed in the Australian Capital Territory who reside in adjoining areas. (b) From July 1971 the estimates exclude trainee teachers, some of whom were classified as wage and salary earners for earlier periods. See Note on page 721. (c) Affected by industrial disputes.

Government employees

The numbers of civilian employees of government bodies (Australian, State, local and semi-government) in each State and Territory at June 1974 are shown in the following table. Government employees comprise not only administrative employees, but also employees on services such as railways, road transport, banks, post office, air transport, education (including universities), broadcasting, television, police, public works, factories, and departmental hospitals and institutions.

CIVILIAN EMPLOYEES OF GOVERNMENT BODIES: JUNE 1974(a)EXCLUDING DEFENCE FORCES AND EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE
(^{'000})

State or Territory	Australian Government			State Government(b)			Local Government(c)			Total		
	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons
New South Wales . .	85.6	32.5	118.1	166.0	71.7	237.7	47.3	6.8	54.1	298.9	111.1	409.9
Victoria	71.8	24.8	96.6	127.6	48.6	176.2	18.1	4.0	22.2	217.6	77.4	295.0
Queensland	28.2	10.7	38.9	77.7	26.3	104.0	19.5	2.0	21.5	125.4	39.0	164.4
South Australia . .	24.1	7.0	31.1	54.9	31.1	86.0	4.6	0.9	5.5	83.5	39.1	122.6
Western Australia .	16.1	6.2	22.3	53.2	22.5	75.7	6.5	1.2	7.7	75.9	29.9	105.8
Tasmania	5.7	1.9	7.6	18.8	7.4	26.1	2.5	0.4	2.9	27.0	9.7	36.6
Northern Territory	9.6	5.7	15.3	..	..	..	0.2	..	0.2	9.8	5.7	15.5
Australian Capital Territory(d)	28.1	18.4	46.5	..	..	..	..	..	..	28.1	18.4	46.5
Australia	269.3	107.2	376.5	498.2	207.6	705.8	98.7	15.4	114.1	866.2	330.2	1,196.4

(a) Includes semi-government bodies. See explanation above. (b) Excludes employees engaged in agriculture (2.9 thousand in June 1974). (c) Excludes employees in private homes of government emergency housekeeper services, and in agriculture (together comprising 1.9 thousand persons in June 1974). (d) Includes persons employed in the Australian Capital Territory who reside in adjoining areas.

CIVILIAN EMPLOYEES OF GOVERNMENT BODIES(a): AUSTRALIA
 EXCLUDING DEFENCE FORCES AND EMPLOYEES IN AGRICULTURE AND PRIVATE DOMESTIC SERVICE
 ('000)

June—	Australian Government(b)			State Government(b)			Local Government			Total(b)		
	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons	Males	Fe- males	Per- sons
1970	243.9	85.5	329.4	467.3	177.1	644.4	92.1	12.8	104.8	803.3	275.4	1,078.7
1971	249.5	88.9	338.3	476.7	188.7	665.4	91.9	13.4	105.4	818.0	291.1	1,109.1
1972	253.0	91.8	344.8	481.8	180.0	661.7	102.4	13.9	116.3	837.2	285.6	1,122.8
1973	261.3	96.9	358.1	490.4	190.9	681.3	105.8	15.0	120.8	857.5	302.7	1,160.2
1974	269.3	107.2	376.5	498.2	207.6	705.8	98.7	15.4	114.1	866.2	330.2	1,196.4

(a) Includes semi-government bodies. See explanation on page 723. (b) From July 1971 the estimates exclude trainee teachers, some of whom were classified as wage and salary earners for earlier periods. See NOTE on page 721.

COMMONWEALTH EMPLOYMENT SERVICE

Statutory warrant for the Commonwealth Employment Service (C.E.S.) is to be found in the *Re-establishment and Employment Act 1945-1973* (Sections 47 and 48). In brief, the main functions of the C.E.S. are to assist people seeking employment to obtain positions best suited to their training, experience and qualifications; and to assist employers seeking labour to obtain employees best suited to their needs. The organisation and functions of the C.E.S. conform to the provisions of the Employment Service Convention, 1948, of the International Labour Organisation (I.L.O.) which was ratified by Australia in December 1949. In addition, C.E.S. practices accord substantially with the provisions of the I.L.O. Employment Service Recommendation, 1948.

The C.E.S. functions on a decentralised basis within the Manpower Development Operations Divisions of the Department of Labor and Immigration. The Central Administration is in Melbourne and there is a Regional Office in the capital city of each State. There are 169 Employment Offices of the C.E.S. in suburban and the larger provincial centres and 147 C.E.S. agents in the smaller country centres. The Employment Offices are distributed as follows: New South Wales, 59; Victoria, 41; Queensland, 28; South Australia, 19; Western Australia, 17; Tasmania, 5. The New South Wales figure includes one office in Canberra while the South Australian figure includes three offices in the Northern Territory.

Specialised facilities are provided for young people, handicapped persons, ex-members of the defence forces, migrants, rural workers, and persons with professional and technical qualifications. The C.E.S. provides vocational guidance free of charge in all States and has a staff of qualified psychologists for this function. Guidance is available to any person, but is provided particularly for young people who are leaving school and adults experiencing employment difficulties, as well as ex-servicemen and handicapped persons. In New South Wales the C.E.S. provides vocational guidance to adults, including ex-servicemen and the handicapped, while the State Department of Labour and Industry provides a vocational guidance service within the school system and for young persons leaving school.

All applicants for unemployment benefits under the *Social Services Act 1947-1973* must register at an Office or agency of the C.E.S., which is responsible for certifying whether or not suitable employment can be offered to them. The C.E.S. is responsible for placing in employment migrant workers sponsored by the Australian Government under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment and recommending the hostels to which migrants should be allocated on arrival. Assistance in obtaining employment is provided to other migrants as required. Since 1951 it has been responsible for recruiting Australian experts for overseas service under the Colombo Plan and the United Nations Expanded Programme of Technical Assistance (now replaced by the U.N. Development Programme). The principal spheres in which experts have been supplied are agriculture, education, engineering, geology, health, and economic and scientific research and development.

In association with placement activities, regular surveys of the labour market are carried out and detailed information is supplied to interested Australian and State Government departments and instrumentalities and to the public. Employers, employees and other interested persons are advised on labour availability and employment opportunities in various occupations and areas and on other matters concerning employment.

The Service completed its twenty-eighth year of operation in May 1974. During 1973 there were 1,341,955 applicants who registered for employment, of whom 1,135,529 were referred to employers and 596,073 placed in employment. New vacancies notified numbered 979,076.

Persons registered for employment

The following table shows the number of persons registered with the C.E.S. at the Friday nearest the end of the month, who claimed when registering that they were not employed, and who were seeking full-time employment, i.e. 35 hours or more per week. They include persons referred to employers but whose employment was still unconfirmed, and persons who had recently obtained employment without notifying the C.E.S. All recipients of unemployment benefit are included. A change of definition has resulted in a different treatment of school leavers. Before July 1973, school leavers comprised all persons under the age of 21 who, at the time of registering with the C.E.S., (i) had ceased full-time primary or secondary education within the previous three months; or (ii) were still at school but notified the C.E.S. that they would leave school before the end of the school year if a full-time job were available. As from July 1973 (August for New South Wales) school leavers comprise all persons under the age of 21 who, at the time of registering with C.E.S. had ceased full-time primary or secondary education within the previous six months.

PERSONS REGISTERED FOR EMPLOYMENT WITH THE COMMONWEALTH EMPLOYMENT SERVICE

(Source: Department of Labor and Immigration)

June(a)	N.S.W.(b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1970	16,527	13,008	8,585	6,360	5,147	1,888	51,515
1971	21,609	17,878	9,412	7,975	6,683	2,682	66,239
1972	34,176	25,430	11,693	12,328	12,076	3,498	99,201
1973	27,003	22,219	10,636	9,339	8,461	3,718	81,376
1974(d)	28,957	21,258	9,537	7,983	7,782	3,310	78,827

(a) Generally at Friday nearest end of month. (b) Includes Australian Capital Territory. (c) Includes Northern Territory. (d) The discontinuity between June 1973 and 1974 is caused by a change in definition of school leavers. This change in definition is explained above.

Job vacancies

The following table shows the number of vacancies registered with the Commonwealth Employment Service. The figures refer to vacancies which employers claimed were available immediately or would be available by the end of the following calendar month.

VACANCIES REGISTERED WITH THE COMMONWEALTH EMPLOYMENT SERVICE

(Source: Department of Labor and Immigration)

June(a)	N.S.W.(b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1970	17,674	12,326	3,240	2,495	3,206	974	39,865
1971	13,623	9,228	3,305	2,596	2,340	679	31,771
1972	8,695	8,411	3,024	2,093	1,564	699	24,486
1973	21,532	16,522	6,986	5,152	3,302	1,014	54,508
1974	23,160	23,561	6,180	4,899	3,302	1,078	62,180

(a) Generally at Friday nearest end of month. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

CHAPTER 21

MANUFACTURING INDUSTRY

Introduction

An historical summary of the development of manufacturing industry in Australia since 1901 is contained in earlier issues of the Year Book (*see* No. 51, pages 143–4).

Decentralisation and manufacturing industries

The decentralisation of secondary industries, and the steps taken by Australian and State Governments towards its development, are referred to in previous issues of the Year Book (*see* No. 51, page 144).

Bounties on manufacture

Bounties are paid by the Australian Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable, and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate, or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards. (*See* Chapter 18, Public Finance for products on which bounties are paid).

Industries Assistance Commission and Temporary Assistance Authority

Both of these authorities are described in Chapter 11, Overseas Transactions.

Standardisation

The Commonwealth Scientific and Industrial Research Organization has functions concerned with the improvement of efficiency in industrial operations. For further particulars *see* the chapter Science and Technology of this Year Book.

The Standards Association of Australia is the organisation responsible for the preparation, on a national basis, of Australian standards for materials and products and standard codes of practice.

Formed as the Australian Commonwealth Engineering Standards Association in 1922, it was reconstituted as the Standards Association of Australia in 1929, and was incorporated by Royal Charter in 1950. It is an independent body having the full recognition and support of the Australian and State Governments and of industry. Approximately half its funds are provided by Australian Government grant, the remainder coming primarily from membership subscriptions and from sale of publications. Organisations, companies, and individuals are eligible for subscribing membership.

The Association is controlled by a Council comprising representatives from Australian and State Governments and their departments, from associations of manufacturing and commercial interests, and from professional institutions. Standards are prepared by committees composed of expert representatives from the interests associated with the subjects under consideration. This assistance is on a voluntary basis.

Preparation of a standard is undertaken in response to a request from any responsible source, subject to verification that the standard will meet a genuine need. Standards may relate to one or more of several aspects of industrial practice such as terminology, test methods, dimensions, specifications of performance and quality of products, and safety or design codes. In general, standards derive authority from voluntary adoption based on their intrinsic merit, but in many cases where safety of life or property or consumer protection is involved, they may have compulsory application through statutory reference.

The Association is the owner of a registered certification trade mark covering conformity of products to standards. Manufacturers of products covered by Australian standards may obtain a licence to use the Australian Standard Mark, under conditions established by the Association.

The Association has international affiliations and is a member, representing Australia, of the International Organization for Standardization (ISO) and of the International Electrotechnical Commission (IEC). Close links are maintained with overseas standards organisations, and the Association acts as Australian agent for the procurement of ISO and IEC publications and the standards of other countries.

The Association has two specialised libraries, one in Sydney and one in Melbourne, containing the national standards of all countries with standards organisations. These libraries provide necessary material for committee work and a free information service to those concerned with standards.

The headquarters office of the Association is in Sydney, and there is a major branch office in Melbourne. Branch offices are located also in other capital cities and at Newcastle, New South Wales.

The National Association of Testing Authorities organises testing facilities throughout Australia to serve private and governmental needs. Membership is open to authorities whose testing laboratories conform to the standards of staffing and operations defined by the Association. Testing authorities may register their laboratories voluntarily. The Association assesses the competence of the laboratories and ensures that their standards of competence are maintained. Certificates of test issued by registered laboratories may be endorsed in the name of the Association. NATA endorsed test certificates are generally accepted by governmental, industrial and commercial interests.

Laboratories are registered for performance of specific tests in the fields of metrology, mechanical testing, electrical testing, optics and photometry, non-destructive testing, heat and temperature measurement, chemical testing, biological testing, and acoustic and vibration measurement. In June 1974, 962 laboratories held NATA registration. A further 25 laboratories had been nominated for registration.

The Industrial Design Council of Australia is engaged in activities aimed at encouraging better design in Australian-made goods and fostering a wider appreciation of good design throughout the community. The Council is representative of industry, commerce and government, together with designers and educationists. It is financed by donations from industry and commerce, and by Australian and State Government grants. The Council's Field Advisory Service has a diagnostic and counselling role, assisting smaller manufacturers throughout Australia with product development policy and direction. Field advisers are based in IDCA State offices in Sydney, Melbourne, Brisbane and Perth. The Australian Design Index, published by the Council in five illustrated volumes covering specific product fields, provides details of articles which have received the *Good Design Label*. These products are also displayed in Australian Design Centres and in other exhibits arranged by the Council.

Regular contact is maintained with senior executives of manufacturing companies, departmental officers and designers through the Design Delegate program of lectures and information. Inquiries seeking professional design services are referred to qualified industrial designers. The Council is also concerned with raising the standard of training in industrial design in co-operation with education authorities.

Publications include the magazine *Design Australia* and monthly bulletin, *Design Report*. The Council's national office is in Melbourne.

Productivity Action.

For information about the Productivity Group Movement and Productivity Promotion Council of Australia see the chapter, Science and Technology.

Manufacturing industry statistics

Manufacturing industry statistics from 1901 to 1967-68

A series of substantially uniform statistics exist from 1901 up until 1967-68 when the framework within which manufacturing statistics were collected was changed. The following table contains a summary of statistics on manufacturing activities in Australia over that period. More detailed manufacturing statistics in respect of this period have been included in Year Book, No. 57, pages 721-9 and earlier issues.

MANUFACTURING INDUSTRY: AUSTRALIA(a), 1901 TO 1967-68

Year	Fac- tories	Employ- ment(b)	Value of—					Land and buildings (e)	Plant and machinery (e)
			Salaries and wages paid(c)	Materials and fuel used	Output	Production (d)			
	No.	'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	
1901	11,143	198	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
1911	14,455	312	55,056	163,526	266,044	102,518	65,402	63,032	
1920-21	17,113	367	125,864	427,118	647,986	220,868	121,662	137,310	
1930-31	21,751	339	124,910	344,978	581,598	236,620	224,422	248,996	
1940-41	27,300	650	275,838	773,762	1,289,590	515,828	288,188	322,712	
1950-51	43,147	969	983,436	2,613,926	4,301,670	1,687,744	605,570	673,230	
1960-61	57,782	1,145	2,289,230	6,115,930	10,465,765	4,349,835	2,389,140	2,785,565	
1963-64	59,375	1,210	2,651,620	7,372,682	12,642,686	5,270,003	3,204,685	3,480,673	
1964-65	61,042	1,269	2,993,709	8,140,600	14,037,355	5,896,754	3,505,859	3,766,253	
1965-66	61,686	1,294	3,162,769	8,437,958	14,689,819	6,251,861	3,776,590	4,154,652	
1966-67	62,500	1,309	3,407,683	9,015,844	15,892,845	6,877,001	4,061,193	4,706,843	
1967-68	62,954	1,331	3,665,902	9,663,217	17,094,070	7,430,853	4,303,156	4,962,203	

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory. (b) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (c) Excludes amounts drawn by working proprietors. (d) Value added in process of manufacture (i.e. value of output less value of materials and fuel, etc. used). (e) Depreciated or book values at 30 June. Includes estimated values of rented premises and machinery.

Manufacturing industry statistics from 1968-69

As from the year ended June 1969, the Censuses of Manufacturing, Electricity and Gas have been conducted within the framework of the integrated economic censuses which include the Censuses of Mining, Retail Trade and Selected Services, and Wholesale Trade. As a result manufacturing industry statistics for 1968-69 and subsequent years are not directly comparable with previous years. The electricity and gas industries, which were previously included in the Annual Factory Census, were the subject of separate censuses, details of which are given on page 736. The integration of these economic censuses was designed to increase substantially the usefulness and comparability of economic statistics collected and published by the Bureau and to form a basis for the sample surveys which supply current economic statistics from quarter to quarter, particularly those which provide data for the quarterly national income and expenditure estimates.

The economic censuses of Manufacturing, Mining and Retail Trade previously conducted in Australia were originally designed and subsequently developed primarily to provide statistics for particular industries on a basis which would best suit the requirements of users interested in statistics of those industries. More recently there has been a growth of interest in statistics describing activity in the economy as a whole—reflected, for example, in the development of employment and earnings statistics, surveys of capital expenditure and stocks and the whole field of national accounts statistics. For such purposes statistics derived from economic censuses in the past have had serious limitations despite the fact that they covered a broad area of the whole economy. Because of the special-purpose nature of each of the censuses, there were no common definitions of data, there was no common system of reporting units, and, as a standard industrial classification was not used for these censuses, industry boundaries were not defined in ways which would avoid overlapping or gaps occurring between the industrial sectors covered. For these reasons, direct aggregation and comparison of statistics from different censuses were not possible.

The integration of these economic censuses meant that for the first time they were being collected on the basis of a common framework of reporting units and data concepts and in accordance with a standard industrial classification. As a result, the statistics for the industries covered by the censuses are now provided with no overlapping or gaps in scope, and in such a way that aggregates for certain important economic data such as value added, employment, wages and salaries, fixed capital expenditure and stocks can be obtained on a consistent basis for all sectors of the economy covered by the censuses.

For the integration of the various censuses it was necessary to undertake three major developments:

- (a) The census units for which the statistics were to be collected (factories, mines, shops, etc.) had to be defined and identified in consistent ways and recorded in a central register, together with identifying data about the businesses owning and operating them.
- (b) A standard industrial classification had to be adopted so that the census units could be classified in consistent ways and to enable the boundaries of the various economic censuses to be determined without gaps or overlapping between them.
- (c) In order to bring the items of data to a consistent basis of definition in all censuses, it was necessary to revise all the forms used in previous censuses.

The standardisation of census units in the integration of economic censuses means that the basic census unit (the establishment), in general, now covers all the operations carried on under the one ownership at a single physical location. The manufacturing establishment is thus one predominantly engaged in manufacturing but the data supplied for it now cover (with a few exceptions) all activities at the location. Previously, the manufacturing establishment covered only a specified manufacturing activity primary to one class of industry. It now covers, in addition, subject to certain exceptions mentioned below:

- (a) Any other manufacturing activity (i.e. production of goods primary to another class of industry).
- (b) Any selling and distribution activities connected with the products manufactured.
- (c) Any non-manufacturing activity (e.g. merchandising of goods not manufactured by the establishment; extraction of raw materials for use by the establishment).

The exceptions in general relate to locations where the subsidiary activities (in terms of gross value) exceed \$1 million, which are treated for statistical purposes as two or more establishments corresponding to the various kinds of activity carried on.

The establishment statistics also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the business (enterprise) which owns and operates the establishment. These units were formerly excluded from the manufacturing census. They are units such as head offices, storage premises and manufacturers' sales branches or sales offices (except those of the kind which distribute to customers from stocks held by such branches or offices which are treated as establishments in the Wholesale Census).

The Australian Standard Industrial Classification (ASIC), described in the Bureau publication *Australian Standard Industrial Classification (Preliminary Edition)*, 1969, Vol. 1, defines the industries in the economy for statistical purposes, thus permitting the scope of the different economic censuses to be specified without gaps or overlapping between them. It also sets out standard rules for identifying the statistical units (e.g. establishments) and for coding them to the industries of the classification. This classification is broadly convertible to the International Standard Industrial Classification adopted by the United Nations Statistical Commission. The adoption of the ASIC has resulted in changes in scope between the integrated economic censuses introduced in 1968-69 and the individual economic censuses conducted in previous years. The main changes in scope in the manufacturing census apart, from providing for a separate census for electricity and gas, are as follows.

- (a) Establishments mainly engaged in the following activities, previously included in manufacturing censuses, are excluded as from 1968-69: motor vehicle repairs but not engine reconditioning; repair and servicing of agricultural machinery; dry-cleaning, laundering and clothes dyeing services; watch, clock and jewellery repairing; boot and shoe repairing; tyre retreading and repairing; custom dressmaking and tailoring (including clothing repair and alterations); installing and repairing of blinds and awnings, making up and installing of curtains; and repair of domestic appliances. Establishments mainly engaged in these activities are now included in the periodic Retail Trade or Wholesale Trade Censuses.
- (b) Establishments mainly engaged in non-manufacturing activities but which also carry out, as a subsidiary activity, some manufacturing activities, and which in respect of those manufacturing activities, were previously included in the manufacturing census are excluded as from 1968-69 unless such establishments have manufacturing activities of a gross value of \$1 million or more.
- (c) Establishments mainly engaged in the following activities, previously excluded in most States from manufacturing censuses, are included as from 1968-69: slaughtering, milk treatment, and publishing.

An indication of the effect of the changes referred to above can be gained from the following comparison. In the 1967-68 census there were approximately 62,600 manufacturing establishments

(excluding electricity and gas establishments), with employment of 1,276,000. Of these, approximately 35,400, with employment of 1,097,000 (but see footnote (b) to the following table) would have been included in the 1967-68 census if ASIC had been used. Figures for the individual States and Territories are given below.

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approximate number of manufacturing establishments—									
1967-68 census	24,900	18,000	6,100	6,200	5,300	1,800	180	240	62,600
1967-68 census if ASIC had been used(a)	13,800	11,400	3,500	3,000	2,500	960	70	100	35,400
Approximate number of employees (thousands)—									
1967-68 census	512	433	114	116	63	34	}		1,276
1967-68 census if ASIC had been used(b)	445	376	95	100	51	27	3		1,097

(a) Excludes the establishments referred to in (c), in the paragraph above. (b) These figures relate to employment as defined for the 1967-68 and previous year censuses. They thus exclude employment at the establishments referred to in (c) in the paragraph above, sales and distribution employees, employees connected with non-manufacturing activities and employees at separately located administrative offices and ancillary units serving manufacturing establishments. The figures, therefore, are not directly comparable with those for 1968-69 and 1969-70, which include the aforementioned employees.

The third step in integrating the censuses, whereby the items of data on the census forms were standardised for all census sectors, has meant changes in the content of the statistics. For example, the value of 'turnover' is now collected instead of the 'value of output' at the factory, and purchases and selected expenses are collected as well as the value of specified materials, fuels, etc., used. However the underlying concept of 'value added,' is similar to the former concept 'value of production', even though its method of derivation is different. Value added, the basic measure of the establishment's contribution to total production, is now calculated as turnover less purchases and transfers in (from other establishments of the enterprise), plus increase (or less decrease) in stocks. In the past the corresponding item, value of production, was obtained by deducting the value of materials, fuels, etc., used from the value of output at the factory. A detailed comparison of the method of derivation is shown in the following table.

Value of production 1967-68	Value added as from 1968-69
Selling value at works, exclusive of all delivery costs or charges, of goods manufactured, treated or worked up during the year, including by-products, plus Value of other work done, . . . such as repairing and making up for customers, etc.	Sales and transfers out (to other establishments of the enterprise), of goods manufactured by the establishment, plus Sales and transfers out of goods not manufactured by the establishment, plus Bounties and subsidies on production, plus All other operating income, plus Capital work done for own use, or for rental or lease
<i>Equals:</i> Value of output	<i>Equals:</i> Value of turnover <i>Plus:</i> Closing stocks <i>Less:</i> Opening stocks
<i>Less—</i> Value of materials used Power, fuel and light used Water used Lubricating oils used Repairs, etc. Containers used	<i>Less—</i> Purchases and transfers in of materials, electricity, fuels, containers, etc. Purchases and transfers in of goods for resale Charges for commission and subcontract work Repair and maintenance expenses Outward freight and cartage, motor vehicle running expenses, sales commission payments
<i>Equals:</i> Value of production	<i>Equals:</i> Value added

Even though the concept of value added is similar to value of production, direct comparison of 1968-69 and previous figures will not be possible because of the change in census units already mentioned which has resulted in the value added for the whole establishment being reported, not merely the value added for the manufacturing process. Comparison is also affected, of course, by the change in the scope of the manufacturing census due to the adoption of ASIC.

A Census of Manufacturing was not conducted in Australia for the year 1970-71.

For a more detailed description of the Integrated Economic Censuses reference should be made to Chapter 31, Year Book No. 56.

Summary of operations

The following table shows the summary of operations for manufacturing establishments.

**MANUFACTURING ESTABLISHMENTS—SUMMARY OF OPERATIONS, BY INDUSTRY
SUB-DIVISION: AUSTRALIA, 1971-72 AND 1972-73**

Industry sub-division	ASIC code (a)	Number of establishments operating at end of June	Persons employed(b)			Wages and salaries \$m	Turn-over \$m	Stocks at 30 June		Purchases, transfers in and selected expenses \$m	Value added \$m	Fixed capital expenditure(c) \$m
			Males No.	Females No.	Total No.			Opening \$m	Closing \$m			
1971-72												
Food, beverages and tobacco	21-2	4,423	148,130	53,460	201,590	790	5,295	620	675	3,666	1,684	180
Textiles	23	873	30,539	24,647	55,186	191	812	171	182	489	334	29
Clothing and footwear	24	3,216	25,096	91,043	116,139	324	1,143	181	190	630	522	19
Wood, wood products and furniture	25	5,884	70,744	10,340	81,084	280	1,077	150	154	590	496	45
Paper and paper products, printing	26	3,588	77,792	28,536	106,328	445	1,616	217	225	806	818	81
Chemical, petroleum, and coal products	27	1,165	47,976	17,634	65,610	314	1,827	327	341	1,037	804	106
Non-metallic mineral products	28	1,854	46,208	5,120	51,328	238	1,002	129	142	519	496	59
Basic metal products	29	627	86,964	5,884	92,848	454	2,657	506	535	1,802	884	444
Fabricated metal products	31	5,170	97,836	22,500	120,336	484	1,774	308	331	973	824	63
Transport equipment	32	1,426	135,807	16,083	151,890	669	2,531	446	504	1,542	1,047	136
Other machinery and equipment	33	4,899	141,391	48,198	189,589	796	2,808	692	716	1,536	1,297	91
Miscellaneous manufacturing	34	3,022	46,655	24,201	70,856	272	1,094	177	191	611	497	46
Total manufacturing		36,147	955,138	347,646	1,302,784	5,257	23,637	3,921	4,187	14,200	9,703	1,298
1972-73												
Food, beverages and tobacco	21-2	4,352	150,250	55,851	206,101	888	6,114	683	734	4,228	1,937	220
Textiles	23	879	30,589	24,227	54,816	215	975	188	208	609	387	25
Clothing and footwear	24	3,151	24,419	87,613	112,032	351	1,207	190	203	662	559	20
Wood, wood products and furniture	25	5,895	72,360	11,006	83,366	317	1,272	159	170	699	584	64
Paper and paper products, printing	26	3,668	77,832	29,933	107,765	494	1,822	231	230	898	924	92
Chemical, petroleum and coal products	27	1,173	47,770	17,646	65,416	351	2,028	349	353	1,134	898	127
Non-metallic mineral products	28	1,856	47,527	5,574	53,101	274	1,167	143	144	602	565	73
Basic metal products	29	639	89,592	6,331	95,923	519	3,024	536	560	2,034	1,014	331
Fabricated metal products	31	5,287	93,895	22,565	116,460	515	1,883	336	336	1,024	861	56
Transport equipment	32	1,524	136,984	16,917	153,901	727	2,688	497	455	1,590	1,056	112
Other machinery and equipment	33	4,856	138,170	48,266	186,436	849	3,014	712	711	1,626	1,388	95
Miscellaneous manufacturing	34	3,159	48,263	25,152	73,415	314	1,264	195	207	698	579	41
Total manufacturing		36,439	957,651	351,081	1,308,732	5,812	26,459	4,218	4,312	15,804	10,750	1,256

(a) Australian Standard Industrial Classification.
fixed tangible assets less disposals.

(b) Average over whole year. Includes working proprietors.

(c) Outlay on

Employment

The statistics on the number of persons employed shown in the following table relates to the average whole year employment including working proprietors, and including those working at separately located administrative offices and ancillary units in the State.

It should be noted that persons employed in each State (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in that State, even though the administrative offices or ancillary units may have served establishments located in another State.

MANUFACTURING ESTABLISHMENTS—MALES, FEMALES AND PERSONS EMPLOYED BY INDUSTRY SUB-DIVISION: 1969-70, 1971-72 AND 1972-73

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
MALES EMPLOYED										
Food, beverages and tobacco	21-2	48,766	46,851	27,172	12,618	9,770	4,236	385	452	150,250
Textiles	23	9,058	16,946	939	1,425	488	1,733	..	..	30,589
Clothing and footwear	24	7,480	14,288	1,162	1,093	294	102	..	..	24,419
Wood, wood products and furniture	25	23,903	18,498	11,201	7,167	6,739	4,403	84	365	72,360
Paper and paper products, printing	26	29,734	25,607	6,989	5,352	4,270	4,877	106	897	77,832
Chemical, petroleum and coal products	27	21,885	16,658	2,637	2,479	2,751	1,360	..	..	47,770
Non-metallic mineral products	28	19,461	12,926	5,816	3,754	4,034	995	188	353	47,527
Basic metal products	29	55,391	11,355	4,483	9,176	4,683	3,657	(b)	(b)	89,592
Fabricated metal products	31	35,624	31,367	9,842	9,005	6,417	1,186	147	307	93,895
Transport equipment	32	41,718	52,478	12,274	24,701	4,592	1,055	(b)	(b)	136,984
Other machinery and equipment	33	58,896	50,341	7,307	14,981	5,532	950	(b)	(b)	138,170
Miscellaneous manufacturing	34	18,549	21,111	2,943	4,013	1,384	228	..	35	48,263
Total manufacturing	1972-73	370,465	318,426	92,765	95,764	50,954	24,782	1,877	2,618	957,651
	1971-72	376,263	310,882	91,241	96,232	52,049	24,856	1,014	2,601	955,138
	1969-70	380,596	306,959	88,413	94,601	50,963	25,371	821	2,345	950,069
FEMALES EMPLOYED										
Food, beverages and tobacco	21-2	17,680	18,067	7,525	6,395	4,187	1,713	119	165	55,851
Textiles	23	7,376	12,301	1,107	1,137	248	2,058	..	..	24,227
Clothing and footwear	24	30,646	46,575	5,422	3,310	1,428	232	..	..	87,613
Wood, wood products and furniture	25	3,771	2,640	1,909	1,175	1,085	346	16	64	11,006
Paper and paper products, printing	26	12,647	10,012	2,565	1,892	1,597	862	43	315	29,933
Chemical, petroleum and coal products	27	10,266	5,965	442	527	364	82	..	..	17,646
Non-metallic mineral products	28	2,312	1,976	329	421	411	75	15	35	5,574
Basic metal products	29	3,423	1,345	268	698	324	144	(b)	(b)	6,331
Fabricated metal products	31	9,661	7,613	1,974	2,081	967	202	22	45	22,565
Transport equipment	32	5,207	8,716	555	2,019	221	190	(b)	(b)	16,917
Other machinery and equipment	33	23,928	17,099	1,012	5,344	748	85	(b)	(b)	48,266
Miscellaneous manufacturing	34	10,649	11,002	1,038	1,833	575	37	..	18	25,152
Total manufacturing	1972-73	137,566	143,311	24,146	26,832	12,155	6,026	347	698	351,081
	1971-72	140,615	139,307	23,127	25,404	12,168	6,113	180	732	347,646
	1969-70	143,147	138,746	22,102	23,815	11,634	6,389	123	615	346,571
PERSONS EMPLOYED										
Food, beverages and tobacco	21-2	66,446	64,918	34,697	19,013	13,957	5,949	504	617	206,101
Textiles	23	16,434	29,247	2,046	2,562	736	3,791	..	..	54,816
Clothing and footwear	24	38,126	60,863	6,584	4,403	1,722	334	..	..	112,032
Wood, wood products and furniture	25	27,674	21,138	13,110	8,342	7,824	4,749	100	429	83,366
Paper and paper products, printing	26	42,381	35,619	9,554	7,244	5,867	5,739	149	1,212	107,765
Chemical, petroleum and coal products	27	32,151	22,623	3,079	3,006	3,115	1,442	..	..	65,416
Non-metallic mineral products	28	21,773	14,902	6,145	4,175	4,445	1,070	203	388	53,101
Basic metal products	29	58,814	12,700	4,751	9,874	5,007	3,801	(b)	(b)	95,923
Fabricated metal products	31	45,285	38,980	11,816	11,086	7,384	1,388	169	352	116,460
Transport equipment	32	46,925	61,194	12,829	26,720	4,813	1,245	(b)	(b)	153,901
Other machinery and equipment	33	82,824	67,440	8,319	20,325	6,280	1,035	(b)	(b)	186,436
Miscellaneous manufacturing	34	29,198	32,113	3,981	5,846	1,959	265	..	53	73,415
Total manufacturing	1972-73	508,031	461,737	116,911	122,596	63,109	30,808	2,224	3,316	1,308,732
	1971-72	516,878	450,189	114,368	121,636	64,217	30,969	1,194	3,333	1,302,784
	1969-70	523,743	445,705	110,515	118,416	62,597	31,760	944	2,960	1,296,640

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Wages and salaries

The following table shows wages and salaries of all employees of manufacturing establishments including those working at separately located administrative offices and ancillary units in the State. Drawings of working proprietors are not included.

MANUFACTURING ESTABLISHMENTS—WAGES AND SALARIES BY
INDUSTRY SUB-DIVISION: 1969-70, 1971-72 AND 1972-73
(\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Food, beverages and tobacco	21-2	303	285	143	70	57	24	3	3	888
Textiles	23	67	116	6	10	3	12	..	..	215
Clothing and footwear	24	119	198	16	12	5	1	..	..	351
Wood, wood products and furniture	25	113	80	46	30	28	17	..	2	317
Paper and paper products, printing	26	201	161	40	32	25	27	1	6	494
Chemical, petroleum and coal products	27	174	119	18	15	17	8	..	..	351
Non-metallic mineral products	28	115	77	30	20	23	5	1	2	274
Basic metal products	29	311	72	27	51	29	21	(b)	(b)	519
Fabricated metal products	31	207	178	47	46	30	5	(b)	2	515
Transport equipment	32	228	287	57	128	21	5	(b)	(b)	727
Other machinery and equipment	33	380	317	35	86	27	4	(b)	(b)	849
Miscellaneous manufacturing	34	125	143	15	23	7	1	..	..	314
Total manufacturing	1972-73	2,343	2,031	481	523	272	131	14	17	5,812
	1971-72	2,164	1,801	426	470	256	119	6	12	5,257
	1969-70	1,788	1,497	332	386	208	102	4	11	4,329

(a) Australian Standard Industrial Classification.

(b) Not available for publication.

Turnover

The following table shows the value of turnover of manufacturing establishments. The figures include sales of goods whether produced by the establishment or not, transfers out of goods to other establishments of the same enterprise, bounties and subsidies on production, plus all other operating revenue from outside the enterprise, such as commission, repair and service revenue and the value of capital work done on own account. Rents, leasing revenue, interest (other than hire purchase), royalties and receipts from the sale of fixed tangible assets are excluded.

MANUFACTURING ESTABLISHMENTS—TURNOVER, BY INDUSTRY SUB-DIVISION
1969-70, 1971-72 AND 1972-73
(\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Food, beverages and tobacco	21-2	1,844	2,143	1,146	420	360	174	15	11	6,114
Textiles	23	309	524	25	56	18	44	..	..	975
Clothing and footwear	24	435	674	42	42	12	2	..	..	1,207
Wood, wood products and furniture	25	449	313	174	134	107	88	2	6	1,272
Paper and paper products, printing	26	733	611	145	125	80	110	2	17	1,822
Chemical, petroleum and coal products	27	1,002	614	175	86	112	40	..	..	2,028
Non-metallic mineral products	28	461	314	153	91	104	23	7	14	1,167
Basic metal products	29	1,675	333	340	262	250	151	(b)	(b)	3,024
Fabricated metal products	31	727	632	192	177	124	22	4	6	1,883
Transport equipment	32	720	1,214	256	413	69	14	(b)	(b)	2,688
Other machinery and equipment	33	1,353	1,124	138	289	95	12	(b)	(b)	3,014
Miscellaneous manufacturing	34	300	585	65	81	29	4	..	1	1,264
Total manufacturing	1972-73	10,207	9,080	2,851	2,176	1,360	682	43	61	26,459
	1971-72	9,293	8,053	2,433	1,942	1,240	596	29	50	23,637
	1969-70	8,277	6,995	2,022	1,764	1,029	542	20	37	20,686

(a) Australian Standard Industrial Classification.

(b) Not available for publication.

Purchases, transfers in and selected expenses

The following table gives details of the value of purchases, transfers in and selected expenses. Figures include purchases of materials, fuel, power, containers, etc., plus transfers in of goods from other establishments of the enterprise, plus charges for commission and sub-contract work, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.

MANUFACTURING ESTABLISHMENTS—PURCHASES, TRANSFERS IN AND SELECTED EXPENSES, BY INDUSTRY SUB-DIVISION: 1969-70, 1971-72 AND 1972-73 (\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Food, beverages and tobacco	21-2	1,267	1,499	813	275	248	110	9	7	4,228
Textiles	23	188	322	15	44	13	27	..	..	609
Clothing and footwear.	24	244	370	19	23	5	1	..	..	662
Wood, wood products and furniture.	25	250	172	87	83	55	48	1	4	699
Paper and paper products, printing.	26	364	305	72	58	36	59	1	4	898
Chemical, petroleum and coal products.	27	533	350	119	46	64	23	..	..	1,134
Non-metallic mineral products	28	240	157	80	46	56	10	4	10	602
Basic metal products	29	1,077	231	221	162	241	95	(b)	(b)	2,034
Fabricated metal products	31	391	334	112	100	72	12	2	2	1,024
Transport equipment	32	380	749	165	252	39	5	(b)	(b)	1,590
Other machinery and equipment	33	738	597	80	151	52	5	(b)	(b)	1,626
Miscellaneous manufacturing	34	269	330	37	43	17	2	..	..	698
Total manufacturing	1972-73	5,940	5,414	1,821	1,281	897	397	23	31	15,804
	1971-72	5,454	4,814	1,584	1,169	776	359	18	25	14,201
	1969-70	5,002	4,307	1,346	1,085	632	318	13	19	12,722

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Stocks

Statistics on the value of opening and closing stocks at 30 June are shown in the following table, Figures include all the stocks of materials, fuels, etc., and finished goods and work-in-progress of the establishment whether located at the establishment or elsewhere.

MANUFACTURING ESTABLISHMENTS—OPENING AND CLOSING STOCKS 1969-70, 1971-72 AND 1972-73 BY INDUSTRY SUB-DIVISION (\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
OPENING STOCKS AT 30 JUNE 1972										
Food, beverages and tobacco	21-2	216	253	72	96	21	22	2	..	683
Textiles	23	64	99	5	7	2	10	..	..	188
Clothing and footwear.	24	71	103	8	7	2	..	..	..	190
Wood, wood products and furniture.	25	52	40	21	16	15	15	..	..	159
Paper and paper products, printing.	26	90	81	19	14	9	17	..	2	231
Chemical, petroleum and coal products.	27	186	112	19	12	14	6	..	..	349
Non-metallic mineral products	28	64	40	16	10	13	3	..	1	143
Basic metal products	29	269	58	74	57	39	35	(b)	(b)	536
Fabricated metal products	31	133	120	27	29	18	4	..	1	334
Transport equipment	32	143	225	34	83	9	3	(b)	(b)	497
Other machinery and equipment	33	313	289	26	62	20	2	(b)	(b)	712
Miscellaneous manufacturing	34	77	91	11	13	4	1	..	..	195
Total manufacturing		1,679	1,506	331	405	167	117	9	5	4,218
CLOSING STOCKS AT 30 JUNE 1973										
Food, beverages and tobacco	21-2	233	267	80	103	25	22	2	1	734
Textiles	23	69	104	5	12	4	14	..	..	208
Clothing and footwear.	24	71	112	8	10	2	..	..	..	203
Wood, wood products and furniture.	25	57	41	22	18	15	16	..	1	170
Paper and paper products, printing.	26	92	81	19	13	10	14	..	2	230
Chemical, petroleum and coal products.	27	184	118	21	10	15	6	..	..	353
Non-metallic mineral products	28	64	35	17	11	13	3	1	1	144
Basic metal products	29	291	66	57	54	48	32	(b)	(b)	560
Fabricated metal products	31	129	123	29	30	20	4	..	1	336
Transport equipment	32	125	213	32	74	8	4	(b)	(b)	455
Other machinery and equipment	33	309	292	27	60	21	2	(b)	(b)	711
Miscellaneous manufacturing	34	81	95	11	15	5	1	..	..	207
Total manufacturing		1,706	1,545	328	410	184	116	17	6	4,311
Opening stocks	1971-72	1,558	1,403	317	368	160	108	4	4	3,921
	1969-70	1,334	1,197	254	301	135	99	2	4	3,326
Closing stocks	1971-72	1,666	1,490	338	399	169	117	4	5	4,187
	1969-70	1,442	1,294	291	336	153	101	3	3	3,623

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Value added

The statistics on value added contained in the following table have been calculated by adding to the value of turnover the increase (or deducting the decrease) in the value of stocks, and deducting the value of purchases, transfers in and selected expenses. A more detailed description of the method of deriving value added is given on page 731.

**MANUFACTURING ESTABLISHMENTS—VALUE ADDED, BY INDUSTRY SUB-DIVISION
1969-70, 1971-72 AND 1972-73**

(\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Food, beverages and tobacco	21-2	595	658	341	152	116	65	6	4	1,937
Textiles	23	125	207	10	18	6	21	..	..	387
Clothing and footwear	24	192	313	23	22	7	1	..	..	559
Wood, wood products and furniture	25	205	143	88	53	52	40	1	3	584
Paper and paper products, printing	26	371	306	73	67	44	48	1	13	924
Chemical, petroleum and coal products	27	466	270	58	38	49	17	..	..	898
Non-metallic mineral products	28	221	155	74	46	49	13	3	4	565
Basic metal products	29	620	111	101	97	19	52	(b)	(b)	1,014
Fabricated metal products	31	332	301	83	77	54	9	2	3	861
Transport equipment	32	321	453	90	152	29	10	(b)	(b)	1,056
Other machinery and equipment	33	611	530	59	136	44	7	(b)	(b)	1,388
Miscellaneous manufacturing	34	235	259	28	41	13	2	..	..	579
Total manufacturing	1972-73	4,293	3,706	1,027	900	481	285	28	30	10,750
	1971-72	3,947	3,328	871	803	472	245	11	26	9,703
	1969-70	3,383	2,785	713	715	415	226	9	17	8,262

(a) Australian Standard Industrial Classification.

(b) Not available for publication.

Number of establishments

The following table shows the number of establishments, in each State, in operation at 30 June for the years indicated. These figures relate to manufacturing establishments as such and do not include the numbers of separately located administrative offices and ancillary units.

**MANUFACTURING ESTABLISHMENTS—NUMBER OF ESTABLISHMENTS IN OPERATION
AT END OF YEAR 1969-70, 1971-72 AND 1972-73, BY INDUSTRY SUB-DIVISION**

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Food, beverages and tobacco	21-2	1,292	1,214	785	445	420	159	23	14	4,352
Textiles	23	310	405	62	48	35	19	..	..	879
Clothing and footwear	24	1,202	1,601	160	106	70	12	..	..	3,151
Wood, wood products and furniture	25	1,921	1,485	1,019	496	576	351	15	32	5,895
Paper and paper products, printing	26	1,567	1,202	303	246	246	67	8	29	3,668
Chemical, petroleum and coal products	27	550	359	81	76	86	21	..	..	1,173
Non-metallic mineral products	28	675	447	270	170	206	55	17	16	1,856
Basic metal products	29	242	211	64	59	45	14	3	1	639
Fabricated metal products	31	2,105	1,513	623	440	476	84	25	21	5,287
Transport equipment	32	490	467	196	177	155	31	6	2	1,524
Other machinery and equipment	33	2,065	1,715	329	392	279	63	2	11	4,856
Miscellaneous manufacturing	34	1,208	1,113	317	261	218	36	..	6	3,159
Total manufacturing	1972-73	13,627	11,732	4,209	2,916	2,812	912	99	132	36,439
	1971-72	13,883	11,409	4,001	2,979	2,727	933	80	135	36,147
	1969-70	13,631	11,394	3,848	2,977	2,705	945	65	111	35,676

(a) Australian Standard Industrial Classification.

Electricity and gas establishments

As mentioned on page 729, the electricity and gas industries, which were previously included in the Annual Factory Census, have been the subject of separate censuses as from 1968-69. In addition the electricity and gas census has been extended to cover distribution as well as production. The following tables show statistics for the years 1969-70 and 1971-72. Censuses were not conducted for 1970-71 or for 1972-73.

For electricity and gas, the basic census unit is an exception to the general concept of the standardised unit. Because of the nature of the activities of electricity and gas undertakings, the single

operating location basis is not suitable. The establishment unit used consists of all locations, including administrative offices and ancillary units, mainly concerned with the production and/or distribution of electricity or gas, operated by the undertaking in the one State. The use of this concept is one of the reasons for the number of electricity and gas establishments since 1968-69 being considerably less than in previous years. The other main reason is that until 1967-68, a number of electricity generating stations operated by enterprises principally for their own use were included. However, as from 1968-69 these generating stations have been included in the electricity census only if sales and transfers of electricity exceeded \$100,000 in value.

**ELECTRICITY AND GAS ESTABLISHMENTS(a), SUMMARY OF OPERATIONS
STATES AND TERRITORIES, 1969-70 AND 1971-72**

State or Territory	Number of establishments operating during year	Persons employed(b)			Wages and salaries (\$m)	Turnover (c) (\$m)	Stocks at 30 June		Purchases, transfers in and selected expenses (\$m)	Value added (\$m)	Fixed capital expenditure(d) (\$m)
		Males (No.)	Females (No.)	Total (No.)			Opening (\$m)	Closing (\$m)			
1969-70											
New South Wales—											
Electricity . . .	51	23,628	2,358	25,986	113	580	45	47	277	305	165
Gas . . .	34	2,769	502	3,271	12	44	3	3	18	27	2
Victoria—											
Electricity . . .	13	13,558	1,311	14,869	64	289	21	23	94	197	96
Gas . . .	8	3,447	574	4,021	19	57	6	5	17	39	20
Queensland—											
Electricity . . .	21	7,760	772	8,532	32	158	11	11	63	94	52
Gas . . .	7	592	115	707	2	10	1	1	4	6	1
South Australia—											
Electricity . . .	18	5,576	185	5,761	23	91	7	6	26	64	25
Gas . . .											
Western Australia—											
Electricity . . .	57	3,598	291	3,889	15	62	6	7	18	44	39
Gas . . .											
Tasmania—											
Electricity . . .	6	2,552	202	2,754	12	39	5	5	1	39	44
Gas . . .											
Northern Territory—											
Electricity . . .	6	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)
Gas . . .											
Australian Capital Territory—											
Electricity . . .	1	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)
Gas . . .											
Australia—											
Electricity . . .	166	55,753	5,071	60,824	255	1,213	94	99	480	738	425
Gas . . .	56	8,338	1,312	9,650	39	129	11	10	44	84	27
1971-72											
New South Wales—											
Electricity . . .	49	23,469	2,395	25,864	140	707	50	54	345	367	154
Gas . . .	23	2,352	524	2,876	13	49	3	3	18	30	4
Victoria—											
Electricity . . .	13	16,409	1,816	18,225	99	375	27	28	136	239	116
Gas . . .											
Queensland—											
Electricity . . .	21	8,038	837	8,875	45	194	13	14	79	116	66
Gas . . .	7	565	104	669	3	12	1	1	5	7	1
South Australia—											
Electricity . . .	16	6,174	358	6,532	34	106	9	9	29	78	42
Gas . . .											
Western Australia—											
Electricity . . .	48	4,275	331	4,606	23	82	8	8	23	60	81
Gas . . .											
Tasmania—											
Electricity . . .	5	2,727	244	2,971	15	48	5	5	2	46	35
Gas . . .											
Northern Territory—											
Electricity . . .	6	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)
Gas . . .											
Australian Capital Territory—											
Electricity . . .	1	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)
Gas . . .											
Australia—											
Electricity . . .	153	57,089	5,391	62,480	332	1,444	105	112	591	861	452
Gas . . .	40	7,409	1,298	8,707	41	148	10	11	57	91	43

(a) Covers production and distribution. (b) At end of June. Includes working proprietors. (c) In some States electricity is produced by certain undertakings and sold to other undertakings for distribution. In these States sales of electricity are duplicated due to the inclusion of the bulk sales to these distributors. (d) Outlay on fixed tangible assets less disposals. (e) Not available for publication. Included in total for Australia.

Principal factory products

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau, and in the bulletin *Manufacturing Commodities—Principal Articles Produced*.

The following table shows the total recorded production of some of the principal articles (i.e. of those for which production can be represented in quantitative terms) manufactured in Australia. A more complete list, where available, is published in the aforementioned bulletin.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING
ESTABLISHMENTS: AUSTRALIA

Commodity code	Article	1969-70	1970-71	1971-72	1972-73
	Acid (in terms of 100%)—				
401.29	Hydrochloric tonnes	38,040	43,207	47,370	40,969
401.37	Nitric "	125,601	119,870	140,317	162,680
401.57	Sulphuric '000 tonnes	1,762	1,612	1,756	2,265
171.03, 04, 07, 08	Aerated and carbonated waters '000 litres	655,286	725,191	773,620	876,455
	Air-conditioning equipment—				
657.03, 05	Room air conditioners (refrigerated) No.	38,966	34,252	41,843	29,090
657.13, 15	Room air coolers (evaporative coolers) "	46,147	41,429	50,007	44,033
657.21, 22, 23	Package unit air conditioners "	7,600	7,977	9,277	8,641
475.04, 06, 07, 85	Asbestos cement building sheets (finished) '000 m ²	34,171	33,646	36,647	39,802
	Bags, leather, fibre, etc.—				
	Handbags—				
864.31	Leather No.	475,841	n.a.	509,214	370,529
864.33	Plastic '000	2,278	n.a.	1,655	1,271
864.39	Other No.	398,773	n.a.	383,430	358,707
946-01-52	Hessian and calico bags '000 doz (a)		n.a.	3,948	2,085
864.11-19	Suitcases, kitbags and trunks '000	1,646	n.a.	1,778	1,706
864.41-49	All other(b) "	1,655	n.a.	1,346	n.a.
	Bath heaters—				
652.01	Electric No.	7,831	7,724	7,394	7,007
652.03, 08, 09	Gas "	3,953	2,981	3,358	2,650
652.05	Solid fuel "	4,703	7,716	6,516	3,744
779.02-36	Bathing suits(c) '000 doz	358	306	342	278
	Baths (exclude infants baths)—				
671.03	Pressed steel—Enamelled '000	115	110	125	153
671.01, 04, 08	Other (exclude pressed steel, galvanised) "	69	80	75	51
	Batteries, wet cell type—				
685.1., 15	Auto (S.L.L.) 6 volts '000	420	378	380	355
685.17, 19	Auto (S.L.L.) 12 volts "	1,822	1,894	2,095	2,084
685.33, 35	Radio, homelighter, fencer No. of 2 volt cells	76,202	59,992	57,396	48,839
685.43-65	Traction, plant and other "	136,061	146,526	157,971	159,046
172.02, 04, 06	Beer (excluding waste beer) mil. litres	1,553	1,619	1,665	1,745
064.21	Biscuits '000 kg	111,108	113,152	116,633	115,982
372.374	Blankets, Woollen—Pure and Mixtures '000	1,687	1,891	1,832	1,687
152.02	Bran (wheaten) '000 tonnes	164	157	134	128
172.21	Brandy '000 litre Al	3,486	n.a.	4,484	3,561
777.41, 49	Brassieres '000 doz	835	821	819	811
066.01-31	Breakfast food, cereal (ready to eat) tonnes	51,025	52,858	55,318	56,235
472.01, 03	Bricks, clay million	1,694	1,669	1,744	1,874
261.41	Briquettes, brown coal '000 tonnes	1,564	1,398	1,308	1,221
051.30, 052, 20, 32	Butter—from cream (exclude whey cream) '000 kg	222,958	203,220	195,407	184,857
773.51, 53, 74, 75, 83	Cardigans, jumpers, etc. '000 doz	1,582	1,542	1,930	1,890
474.02	Cement, Portland '000 tonnes	4,499	4,685	4,884	5,037
051	Cheese (non-processed) '000kg	76,303	77,566	80,871	93,441
	Cloth (including mixtures)—				
373.10-52	Cotton(d) '000 m ²	47,648	47,235	47,147	45,324
374.02-16	Rayon and acetate "	29,193	26,666	21,258	23,005
374.20-34	Synthetic (non-cellulosic) "	31,573	31,754	41,555	87,834
372.02-50	Wool (excluding blanketing and rug) "	27,092	15,829	13,870	14,208
435.22	Coke—Metallurgical '000 tonnes	4,033	4,542	4,136	4,925
475.90	Concrete, ready mixed '000 m ³	8,290	8,933	9,748	9,726
	Confectionery—				
104.06-18	Chocolate '000 kg	46,435	49,537	52,569	49,633
104.21-29	Other "	55,904	56,892	59,062	60,342
452.04	Copper, refined(e) '000 tonnes	105	115	131	136
	Coppers (wash boilers)—				
653.31	Electric No.	(a)	3,972	2,792	2,248
653.33, 38, 39	Gas "	1,502	335	273	228

(a) Not available for publication. (b) Excludes canvas water bags. (c) Includes swim shorts. Excludes infants' and babies' swim-wear. (d) Excludes tyre-cord fabric and towelling. (e) Primary origin only.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	Article	1969-70	1970-71	1971-72	1972-73	
171.06, 10	Cordials and syrups	'000 litres	51,879	60,638	69,768	78,409
777.01-29	Corsets and corselets	'000 doz	345	271	255	251
611.01	Cycles (complete)	'000	126	125	131	165
804.01	Dentifrices (toothpaste)	'000 kg	5,378	n.a.	5,546	5,266
	Electric generators—					
503.06	Non-automotive—Alternating current	No.	2,790	n.a.	3,081	2,691
503.08	Direct current	"	297	n.a.	139	n.a.
499.42	Electricity	mil. kWh	53,887	57,974	59,501	64,802
523.76-78	Electrodes for manual welding	'000 kg	23,270	24,226	23,453	20,914
502.22-39	Engines, spark and compression ignition(a)	'000	364	354	355	430
	Essences, flavouring—					
139.31	Domestic	'000 litres	520	n.a.	417	398
139.35	Industrial	"	4,290	n.a.	5,017	5,409
802.11, 12	Face powder	'000 kg	140	n.a.	126	113
696.01, 03, 05	Fans, electric (propeller type)	No.	429,018	374,167	405,196	473,453
045.01, 51	Fish, canned (including fish loaf)	'000 kg	7,047	5,149	6,322	7,264
	Floorboards—					
332.06	Australian timber	m ³	369,197	n.a.	310,041	331,516
332.08	Imported timber	"	2,298	n.a.	1,006	366
	Floor coverings—					
841.01-07	Textile	'000 m ²	15,311	17,422	21,594	25,187
841.31-61, 69	Smooth surface and embossed	"	12,056	12,842	13,104	12,804
841.67, 68	Timber parquetry	"	465	322	234	217
841.85	Underfelts, underlays, etc.(b)	"	16,950	17,741	17,459	16,874
692.21, 23	Floor polishers, electric	No.	53,701	49,720	35,998	28,925
	Flour—					
068.01	Self-raising	'000 kg	42,020	n.a.	42,451	38,496
062.01, 10, 32	Wheat(c)	'000 tonnes	1,279	1,313	1,204	1,146
	Fruit juices, natural—					
074.61-69, 79	Single strength	'000 litres	92,758	n.a.	91,547	n.a.
074.76, 89	Concentrated(d)	"	8,787	n.a.	12,808	13,939
434.09	Gas (produced by gas establishments)	'000 therms	410,713	n.a.	616,392	751,739
781.06-31	Gloves, work(e)	'000 doz pairs	2,188	2,445	3,168	3,425
127.21	Glucose	'000 kg	33,936	44,030	52,632	57,546
832.58, 59	Golf clubs	doz	42,178	46,067	50,131	61,928
	Handkerchiefs					
786.01	Men's	'000 doz	1,800	n.a.	1,672	1,215
786.11	Women's	"	1,275	n.a.	1,249	1,212
	Heaters, room—					
651.01, 03	Solid fuel	No.	16,153	9,648	9,767	6,912
651.11-17	Electric radiators and fires	'000	713	659	813	810
651.04, 05, 21, 22, 26, 27	Gas fires and space heaters	No.	52,206	55,988	58,421	67,591
	Hosiery—					
775	Women's (including panty hose)	'000 doz pairs	6,121	7,313	7,518	8,881
	Men's	"	1,953	1,859	1,831	1,972
	Childrens' and infants'	"	1,140	1,054	1,147	1,250
281.04	Ice, made	'000 tonnes	122	n.a.	116	113
051.61	Ice cream(f)	'000 litres	191,124	190,779	196,522	209,268
051.87, 89, 90	Infants' invalids' and health beverages from cows milk(g)	'000 kg	24,872	23,977	26,999	26,707
	Ink, printing—					
419.31	News	"	10,869	n.a.	11,243	10,940
419.43-59	Other	"	8,184	n.a.	11,716	13,880
	Iron and steel—					
442.04, 08	Pig iron	'000 tonnes	5,956	6,240	6,006	7,182
442.80-83	Steel ingots	"	6,625	6,800	6,480	7,235
442.28	Blooms and slabs (h)	"	5,884	5,765	5,569	6,164
693.51, 61, 63	Irons, electric (hand, domestic)	'000	592	556	593	646
076.60	Jams (including conserves, jellies, etc.)	'000 kg	37,364	38,659	34,927	33,166
391.04	Lard	"	2,815	n.a.	2,385	2,736
	Lawn mowers—					
699.52, 53	Petrol, rotary	No.	270,293	290,224	293,350	340,877
699.41, 45, 55, 61	Other types(i)	"	20,489	17,579	19,219	15,900
453.04	Lead refined(j)	'000 tonnes	172	155	191	174

(a) Petrol and diesel. Excludes car, motor cycle, truck, tractor, aero, and marine engines. (b) Needled (or bonded) felts of jute or jute/hair mixtures (for all purposes). (c) Includes wheatmeal for baking and sharps and other flour. (d) Excludes grape must. (e) Excludes fabric liners for dipped gloves but includes moulded or heat-sealed work gloves. (f) Includes ice-cream combined with other confections. Including those aerated milk-based confections which contain 10% or more butterfat. (g) Includes malted milk and milk sugar (lactose). (h) Primary mills output. (i) Petrol cylinder, electric and hand. (j) Includes lead content of lead alloys from primary sources, but excludes lead-silver bullion.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING
ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	Article		1969-70	1970-71	1971-72	1972-73
	Leather—					
	Dressed or finished—					
301.43-65	Chrome tanned (including retanned)	'000 m ³	6,167	n.a.	6,123	5,489
301.31-37, 83-89	Vegetable tanned, by weight	'000 kg	4,535	n.a.	3,684	3,873
301.67, 69	Vegetable tanned, by measurement	'000 m ³	316	n.a.	233	191
	Lime—					
275.43, 45	Crushed	tonnes	211,550	n.a.	206,327	222,598
479.18	Hydrated	"	164,740	n.a.	139,181	147,131
479.12	Quick	"	434,362	n.a.	423,196	447,782
802.21	Lipstick	kg	47,560	n.a.	45,422	41,925
063.11-21, 31	Malt (excluding extract)	'000 kg	264,767	315,777	372,536	339,243
	Margarine—					
121.01	Table	"	15,710	16,240	17,599	23,058
121.06, 08	Other	"	47,764	50,306	54,426	54,429
	Mattresses—					
844.22, 25, 27	Inner spring	'000	720	721	696	738
844.42, 45, 47	Rubber	"	48	45	45	30
844.52-67	Other	"	310	308	332	463
027.02-76	Meat, canned(a)	'000 kg	46,737	54,388	59,032	48,520
	Meters (domestic)—					
702.01	Electricity consumption	'000	269	313	215	298
703.01	Gas consumption	"	63	66	68	65
703.11	Water consumption	"	174	185	158	169
	Milk, condensed, concentrated and evaporated—					
051.21, 22	Full cream, coffee and milk, sweetened	'000 kg	16,125	16,696	16,705	14,301
051.26, 27, 052.42	Full cream, unsweetened	"	57,128	61,797	47,832	46,288
051.28	Skim	"	21,189	14,997	11,489	10,986
	Milk powder in powered form—					
051.72, 73	Full cream	"	22,979	25,634	28,763	36,329
051.76-79	Skim	"	94,007	91,507	92,680	117,603
051.81, 82	Buttermilk or mixed skim and buttermilk	"	18,366	17,175	14,528	15,677
503.17-32	Motors, electric	'000	4,056	3,249	3,466	3,796
	Motor vehicles, finished—					
581.02-08	Cars	No.	334,802	320,510	340,122	319,616
581.10-16	Station wagons	"	55,734	54,023	51,931	49,952
582.04	Utilities	"	37,753	33,156	34,105	36,138
582.06	Panel vans	"	18,013	18,059	20,330	25,561
582.08-24	Truck and truck-type vehicles	"	1,052	799	3,357	5,892
	Motor vehicles, partly finished—					
581.22-28	Cars, station wagons, utilities, vans	"	2,183	1,509	2,244	1,687
582.31, 32	Trucks and truck-type vehicles	"	26,678	22,985	18,982	14,104
582.33-46	Motor vehicle safety belts	'000	1,142	n.a.	3,727	3,139
589.81-89						
465.16, 17	Nails	tonnes	24,574	24,304	24,392	25,081
782.03, 04	Neckties	'000 doz	464	n.a.	620	616
	Oatmeal and rolled oats—					
062.61, 63	For porridge, etc.	tonnes	15,301	14,647	17,247	14,014
393						
394	Oils and fats, crude—Vegetable	000 kg	48,412	n.a.	66,533	75,390
	Paints, etc.—					
	Architectural and decorative(b)—					
	Solvent thinned—					
410.01	Primers and undercoats	'000 litres	13,310	12,696	13,334	13,119
410.03, 05, 07	Finishing coats	"	26,273	29,395	29,654	31,600
	Water thinned—					
410.11, 13, 15	Plastic latex	"	21,831	22,931	24,567	26,768
410.17	Other water based	"	361	441	441	325
410.25	Tinting colours (all types) packed for sale or transfer out	"	445	313	327	369
	Paper—					
351.11	Newsprint	'000 tonnes	173	179	181	199
351.18-79	Other	"	494	506	526	546
352.11-33	Paperboard	"	377	385	382	408
975.04, 09, 11	Perambulators, pushers and strollers	'000	158	172	177	195
479.22	Plaster of paris	tonnes	302,728	308,993	314,748	344,388
479.32, 33	Plaster sheets—Non-acoustic	'000 m ²	29,889	32,105	34,314	39,796
334.32, 34, 36, 38	Plywood, $\frac{1}{8}$ inch basis	"	24,128	n.a.	21,655	23,360
152.06	Pollard from flour	'000 tonnes	283	284	256	240

(a) Excludes poultry and baby food.

(b) Excludes heavy duty coatings.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—continued

Commodity code	Article		1969-70	1970-71	1971-72	1972-73
	Preserves—					
	Fruit					
076.01-50	Canned or bottled	'000 kg	307,894	301,361	253,791	273,814
074.01	Pulp and puree—single strength	"	4,503	n.a.	4,464	3,876
	Vegetables—					
094.02-47	Canned or bottled	"	88,992	88,901	113,892	104,503
092.02, 06, 10, 19	Quick frozen	"	79,368	59,712	91,624	90,808
	Pyjamas—					
774.20, 22, 27, 29	Men's, youths' and boys' (suits only)	'000 doz	486	477	468	388
774.50-59	Women's, maid's and girl's (incl. night-dresses)	"	779	812	883	788
	Racquet frames (all types)	"	16,663	16,699	19,019	19,783
832.65, 85	Radio receiving sets (including radiograms)	No.	729,514	745,828	770,343	866,994
643.01, 37	Records (phonograph)—					
646.35, 65	Single play	'000	6,913	6,367	5,965	5,417
646.37, 41, 67, 71	Extended play	"	1,623	1,195	805	954
646.43, 45, 73, 75	Long play	"	11,262	14,207	15,066	17,041
657.32, 41	Refrigerators, domestic, electric and gas	"	241	241	263	248
403.404	Resins, plastics and synthetic, for all purposes	'000 tonnes	224	256	285	341
061.67, 69	Rice, polished, unpolished and broken	'000 kg	175,021	n.a.	202,434	216,187
372, 70, 72	Rugs	'000	215	180	186	112
374, 59						
	Sauce	'000 litres	23,181	n.a.	29,107	27,392
123, 18-25	Semolina	'000 tonnes	22	23	24	24
062.04	Shirts (men's, youths' and boys'), collar attached(a)	'000 doz	700	699	650	656
773.02-09	Sink heaters, electric	No.	8,744	9,594	9,315	9,517
653.01	Sinks, steel and other (standard size)	"	256,925	238,000	239,902	252,168
671.11-18	Soap, for personal toilet use (b)	tonnes	27,135	28,352	29,028	28,913
805.01-13	Soup—					
122.02, 09	Canned	'000 litres	42,289	41,959	41,960	45,243
122.13, 15	Dry-mix	'000 kg	5,041	5,777	5,882	6,693
127.11-19	Starch (incl. cornflour)	"	105,869	127,113	132,666	148,505
401.53	Stearine (stearic acid)	"	6,175	n.a.	6,490	5,620
461.20	Steel, constructional, fabricated	tonnes	682,191	n.a.	696,790	651,204
	Stoves, ovens and ranges, domestic cooking—					
661.01-11	Electric(c)	No.	221,379	219,868	227,314	251,014
662.26-43	Gas(d)	"	82,849	82,486	89,343	91,291
662.01, 03	Solid fuel	"	10,626	8,453	7,612	6,204
	Sugar—					
102.01	Raw	'000 tonnes	2,214	n.a.	2,793	
102.12	Refined	"	682	680	664	696
405.36	Sulphate of ammonia	tonnes	108,046	176,560	111,107	227,864
415.07	Superphosphate(e)	'000 tonnes	3,578	3,115	3,612	4,918
	Talcum powder	'000 kg	4,526	n.a.	4,738	4,804
	Tallow (including dripping), rendered—					
803.61	Edible	"	87,602	n.a.	89,927	94,892
391.14, 16	Inedible	"	242,840	n.a.	294,602	278,485
391.24	Television sets	No.	319,657	335,373	361,169	383,663
643.49-65	Television picture tubes incorp. new screens	"	411,436	490,034	432,309	371,937
645.51-58	Tiles, roofing—					
475.30	Concrete	'000 }	182,190	176,580	196,192	217,884
472.12	Terracotta	"				
	Timber—					
	From native logs—					
331.01-07	Hardwood, etc	'000 m ³	2,672	n.a.	2,582	2,560
331.09-19	Softwood	"	714	n.a.	782	848
331.23, 25	From imported logs	"	23	n.a.	9	5
661.21, 23	Toasters, electric (domestic)	No.	371,333	380,582	373,399	489,481
183.21-28	Tobacco	'000 kg	3,119	n.a.	3,038	2,671
094.51	Tomato juice	'000 litres	8,540	16,127	15,140	9,699
094.53	" paste and puree	"	7,632	n.a.	9,392	9,342
373.58-64	Towels	'000 doz	913	898	936	854
671.51-59	Toilet cisterns	No.	459,920	402,749	430,205	454,188
683.03-11	Transformers, chokes and ballasts, for distribution of power and light, etc.	"	16,168	14,969	14,946	11,599
	Umbrellas, street and general purpose	No.	602,790	n.a.	731,658	734,814
863.01	Underwear (men's, women's, children's)	'000 doz	(f)7,073	7,370	6,728	6,933
774						

(a) Business or formal. (b) Excludes powdered shampoo. (c) Includes wall ovens but excludes cooking tops and portable units. (d) Upright and elevated (with ovens) including wall ovens, but excluding hotplates, stovettes, etc. (e) Includes ammonium phosphate. (f) Excludes men's, youths' and boys' combinations.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING
ESTABLISHMENTS: AUSTRALIA—*continued*

Commodity code	Article	1969-70	1970-71	1971-72	1972-73
692.01	Vacuum cleaners (domestic)	'000 156	176	174	203
	Wash basins—				
671.37	Earthenware	230	213	233	278
671.33-35	Pressed steel	98	104	98	108
693.02-18	Washing machines, household, electric	316	305	312	343
	Weatherboards—				
332.12	Australian timber	m ³ 34,152	n.a.	33,496	35,083
332.14	Imported timber	7,147	n.a.	5,535	5,944
152.14	Wheatmeal for stock feed	'000 tonnes 204	284	313	394
519.01	Wheelbarrows (metal)	No. 121,760	n.a.	144,080	169,400
	Wine, beverage—				
172.42	Fortified	'000 litres 62,640	50,380	59,922	54,328
172.46	Unfortified	89,236	83,073	94,387	117,222
341.31-45	Wood pulp (air dried)	'000 tonnes 472	555	506	538
242.07-11	Wool, scoured or carbonised	tonnes 72,576	62,804	68,254	59,992
242.33 35	Wool tops, pure	'000 kg 19,106	18,688	17,493	19,637
	Yarn (including mixtures)—				
364.11-50	Cotton	29,268	28,658	27,763	27,483
363.47-75	Woollen	18,056	19,123	19,447	18 736
363.17-31	Wool worsted	8,459	8,865	8,665	8,590
365.38-65	Rayon and acetate, spun	5,509	5,354	5,575	4,768
365.90, 366.03 04, 16, 29, 30, 42, 55, 56, 88, 96, 97	Synthetic (non-cellulosic) fibres spun	5,339	6,835	7,009	10,638
457.04	Zinc, refined(a)	'000 tonnes 262	254	274	299

(a) Primary origin only includes small quantities of zinc dust.

Enterprise and Industry Concentration Statistics

Industry statistics shown earlier in this chapter relate to *establishments*. Statistics are also available from the 1968-69 Economic Censuses for *enterprises* engaged in manufacturing industry. A description of the statistics and broad summary tables are given in the Miscellaneous chapter.

Similarly *industry concentration* statistics have been published for 1968-69. These aim to show the extent to which individual enterprise groups dominate particular industries. A description and summary tables of these statistics are also given in the Miscellaneous chapter.

CHAPTER 22

RURAL INDUSTRY

This chapter is divided into nine major parts:

Land tenure; Rural land use; Crops; Livestock and livestock products; The Bee-Farming Industry; Rural improvements, conservation and consumption of fodder; Agricultural machinery on rural holdings; Rural employment; Assistance to, and control of, agriculture.

For greater detail on the subjects dealt with in this chapter see the annual bulletins *Rural Industries* (10.29), latest issue *Bulletin No. 8 1969-70*, and *Manufacturing Commodities* (12.7) (regarding butter, cheese, etc., factories) issued by this Bureau. Current information on commodities produced is obtainable in the *Quarterly Summary of Australian Statistics* (1.3), *Monthly Review of Business Statistics* (1.4), *Monthly Bulletin of Production Statistics* (12.14), and *Digest of Current Economic Statistics* (monthly) (1.5). The series of bulletins *Classification of Rural Holdings by Size and Type of Activity* (10.28) (see page 747) shows particulars of rural holdings classified by size, nature and area of crops, and numbers of livestock, and also according to main type of activity. The mimeographed annual *Apparent Consumption of Foodstuffs and Nutrients* (10.10) contains details of the production and utilisation of foodstuffs (See also chapter 31, Miscellaneous). The following mimeographed publications also contain considerable detail on the particular subjects dealt with.

Crops. *Crop Statistics* (annual) (10.58); *Agricultural Statistics, Preliminary Statement* (10.57); *Rural Land Use, Improvements, Agricultural Machinery and Labour* (annual) (10.59); *Principal Agricultural Statistics: Preliminary Estimates* (annual) (10.63); *The Wheat Industry* (annual) (10.35); *The Wheat Industry: Estimates of Intended Sowings* (annual) (10.36); *The Wheat Industry: Estimates of Area Sown* (annual) (10.52); *The Wheat Industry: Estimates of Wheat Production* (annual) (10.53); *Fruit Growing Industry* (annual) (10.11).

Livestock and livestock products. *Livestock Statistics* (annual) (10.14); *Livestock Statistics: Preliminary Estimates* (annual) (10.15); *Wool Production and Utilisation* (annual) (10.38); *The Meat Industry* (Monthly) (10.16); *The Meat Industry* (annual) (10.54); *Livestock Slaughtered and Meat Produced* (quarterly) (10.74); *The Dairying Industry* (annual) (10.15); *Whole Milk Production and Utilisation* (monthly) (10.6); *Chicken Hatchings and Poultry Slaughtering* (monthly) (10.44); *Principal Agricultural Statistics: Preliminary Estimates* (annual) (10.63).

Other. *Bee Farming* (annual) (10.3); *Value of Primary Production (excluding Mining) and Indexes of Price and Quantum of Farm Production* (annual) (10.27); *Value of Primary Production (excluding Mining) (Preliminary Statement)* (annual) (10.25); *Gross Value of Primary Production (excluding Mining) (Preliminary Estimates)* (annual) (10.24); *Rural Land Use, Improvements, Agricultural Machinery and Labour* (annual) (10.59); *Estimates of Gross Indebtedness of Agricultural Producers, Australia* (annual) (10.62).

Rural debt. For estimated figures of rural debt to specified lenders for the years 1968-69 to 1972-73 see page 551 of this Year Book.

Throughout this chapter yearly periods for area and production of crops relate to years ended 31 March. Other periods in respect of e.g. factory and trade statistics relate to years ended 30 June.

LAND TENURE

Disposal of Crown lands

Land legislation and tenures

The following sections contain figures showing the extent of the different land tenures in the States and Territories, classified under broad headings indicating the nature of the tenure, together with some general descriptive matter. Information in greater detail, descriptions of the land tenure systems of the States and the Territories, and conspectuses of land legislation in force and of the systems of land tenure were provided in Year Book No. 48 and previous issues (see also Year Book No. 50, page 85 and List of Special Articles, etc. preceding General Index to this Volume).

Free grants and reservations

Provision exists in all States except Tasmania for the disposal of Crown lands for public purposes by free grants, and in all States for the temporary and or permanent reservation of Crown lands for public purposes. In the Northern Territory any Crown lands not subject to any right of, or contract for, purchase may be resumed for public purposes, and the whole or any portion of the lands resumed may be reserved for that purpose. In the Australian Capital Territory, under the *Seat of Government (Administration) Act 1910-72*, Crown lands may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act.

AREAS OF CROWN LANDS RESERVED

(*000 hectares)

Year	N.S.W.(a)	Vic.(a)	Qld(b)	S.A.(a)	W.A.(a)	Tas.(a)	N.T.(a)	A.C.T.(a)	Total
1969 . . .	6,414	n.a.	11,416	9,275	32,687	2,555	24 736	..	n.a.
1970 . . .	6,391	(c)3,151	11,520	9,277	34,001	2,579	25,178	..	92,097
1971 . . .	6,373	(c)3,153	11,589	9,283	36,557	2,679	25,231	..	94,865
1972 . . .	6,340	(c)3,154	11,567	9,285	39,010	2,688	25,231	9	97,284
1973 . . .	6,331	6,776	11,336	9,285	39,099	2,665	26,587	10	102,089

(a) At 30 June. (b) At 31 December. (c) Excludes areas set aside for roads.

The purposes for which areas were reserved are given hereunder for the latest year available as set out in the table above.

New South Wales. For travelling stock, 1,987,130 hectares; forest reserves, 639,644 hectares; water and camping reserves, 293,811 hectares; mining reserves, 393,293 hectares; recreation and parks, 300,973 hectares; other reserves, 2,716,150 hectares; total 6,331,001 hectares.

Victoria. Water reserves, 85,827 hectares; forest and timber reserves, 2,349,039 hectares; national parks, 205,276 hectares; public parks and camping reserves, 49,092 hectares; native flora and fauna, 57,437 hectares; other reserves (including roads), 4,028,454 hectares; total, 6,776,125 hectares.

Queensland. For timber reserves, 679,326 hectares; State forests and national parks, 4,282,443 hectares; Aboriginal reserves, 2,771,225 hectares; streets, surveyed roads and stock routes, 1,453,164 hectares; general reserves, 2,149,966 hectares; total, 11,336,124 hectares.

South Australia. Total area of surveyed roads, railways and other reserves, 9,285,134 hectares including 7,626,280 hectares set apart as Aboriginal reserves.

Western Australia. For State forests, 1,825,838 hectares; timber reserves, 71,295 hectares; other reserves, 37,201,480 hectares; total, 39,098,613 hectares.

Tasmania. For forest reserves, 2,228,000 hectares; national parks, 437,000 hectares; total, 2,665,000 hectares.

Northern Territory. For Aboriginal, defence and public requirements, 26,587,000 hectares.

Australian Capital Territory. For public parks and recreation reserves, 10,114 hectares.

Conditional and unconditional purchases of freehold

Crown lands in the States may be disposed of by unconditional purchase at public auction or by certain other forms of purchase (for details *see* Year Book No. 48, pages 91-2). Conditional purchases of various types may also be made. In the Northern Territory only 0.1 per cent of the total area is alienated, the remainder being held under lease or licence, or reserved for various purposes or unoccupied. In the Australian Capital Territory about 10 per cent of the area is alienated or in process of alienation in consequence of contracts existing prior to the establishment of the Territory.

Leases and licences

Well over half the area of the States of New South Wales and South Australia and of the Northern Territory and about four-fifths of Queensland are occupied under some form of lease or licence. In Victoria, only about one-tenth of the area is leased or licensed, more than half being alienated; in Western Australia, more than one-third is leased or licensed, most of the remainder being unoccupied

in Tasmania about one-third is leased or licensed, while about one-quarter of the area of the State is occupied by the Crown or unoccupied, and the remainder alienated. Areas leased or licensed in the States are held under Crown lands Acts, closer settlement Acts, mining Acts, etc., and in the Territories under various Ordinances.

Land Acts and Ordinances. The types of lease and licence granted under land legislation cover a wide range, and vary with each State or Territory. The following are examples: grazing or pastoral, settlement and closer settlement, settlement purchase, conditional and unconditional purchase, perpetual and Crown; however, the variations of these forms and the special forms of lease and licence which exist would extend this list considerably. Details of the various types in existence are given in Year Book No. 48, pages 93-4, and some detail is included in the tables on pages 878-81 of Year Book No. 53.

AREAS OCCUPIED UNDER LEASE OR LICENCE OTHER THAN MINING AND FORESTRY
(*000 hectares)

Year	N.S.W.(a)	Vic.(a)	Qld(b)	S.A.(a)	W.A.	Tas. (a)	N.T. (a)(c)	A.C.T. (a)(c)	Total
1969 . . .	45,426	n.a.	136,253	60,431	(a)99,245	283	78,091	102	n.a.
1970 . . .	45,123	2,213	137,198	60,683	(a)99,961	282	79,736	102	425,298
1971 . . .	44,973	2,240	138,404	60,562	(b)101,995	357	80,588	98	429,217
1972 . . .	44,931	2,253	140,404	60,167	(b)101,921	247	80,967	96	430,986
1973 . . .	44,663	2,305	134,183	59,914	(b)101,471	212	77,016	84	419,848

(a) Year ended 30 June. (b) Year ended 31 December. (c) Leases and licences for all purposes.

Closer settlement and war service settlement

Closer settlement

Particulars of the methods of acquisition and disposal of land for the closer settlement of civilians and returned service personnel (1914-18 War) in the several States are given in issues of the Year Book up to No. 22 (*see* No. 22, pages 163-9), and the results of the operations of the several schemes have appeared in subsequent issues in considerable detail. However, the amalgamation in some States of closer settlement records with those of other authorities has since made it impossible to obtain up-to-date figures for those States and for Australia as a whole. Page 96 of Year Book No. 48 contains particulars as at 30 June 1960 of the areas and costs for those States for which separate information is available.

War Service Land Settlement Scheme

The War Service Land Settlement Scheme provides for the settlement on the land of eligible ex-servicemen from the 1939-45 War and the Korea-Malaya operations. Finance for capital expenditure under the scheme in South Australia, Western Australia and Tasmania and for special loans to New South Wales and Victoria is provided through Loan (War Service Land Settlement) Acts. Finance for other aspects of the scheme in all States is provided by annual parliamentary appropriation. The *States Grants (War Service Land Settlement) Act* 1952 provides that the responsible Australian Government Minister may make grants of financial assistance to the States under such terms as he may from time to time determine. At 30 June 1970, 9,129 farms had been allotted from a total area of 5,640,000 hectares acquired and no further farms are to be provided.

Particulars of expenditure on war service land settlement, to 30 June 1968, are given in Year Book No. 55, pages 716-17.

Alienation and occupation of Crown lands

Detailed particulars of the alienation and occupation of Crown lands in the several States and Territories are given in previous issues of the Year Book up to No. 53 (*see* No. 53, pages 878-81).

The following table provides a summary for each State and Territory, and for Australia as a whole, of the alienation and occupation of Crown lands in 1973.

ALIENATION AND OCCUPATION OF CROWN LANDS 1973

State or Territory	Private lands				Crown lands				Total area '000 hectares
	Alienated		In process of alienation		Leased or licensed		Other(a)		
	'000 hectares	Per cent	'000 hectares	Per cent	'000 hectares	Per cent	'000 hectares	Per cent	
N.S.W.(b)	25,328	31.6	1,745	2.2	45,226	56.4	7,844	9.8	80,143
Vic.(b)	13,547	59.5	133	0.6	2,305	10.1	6,776	29.8	22,762
Qld(c)	12,483	7.2	15,437	8.9	134,357	77.8	10,523	6.1	172,800
S.A.(b)	6,499	6.6	109	0.1	59,914	60.9	31,916	32.4	98,438
W.A.(c)	14,603	5.8	4,936	2.0	102,711	40.6	130,512	51.6	252,762
Tas.(b)	2,729	39.9	133	1.9	2,036	29.8	1,935	28.3	6,833
N.T.(b)(d)	87	0.1	..	..	77,695	57.7	56,838	42.2	134,620
A.C.T.(b)(e)	22	9.0	2	1.0	84	34.5	135	55.5	243
Australia	78,298	9.8	22,495	2.9	424,328	58.2	246,479	31.2	768,601

(a) Occupied by Crown; reserved; unoccupied; unreserved. (b) At 30 June. (c) At 31 December 1973. (d) Not comparable with previous years due to a review by the Department of the Northern Territory. (e) Includes Jervis Bay area.

RURAL LAND USE

Number and area of rural holdings

Statistics relating to the number and area of rural holdings are derived from the annual Agricultural Census conducted at 31 March each year.

Although the statistics are now expressed in metric units, a rural holding has been defined for the purpose of these statistics, as a holding of one acre (0.404686 hectares) or more in extent used for the production of agricultural products (including fruit and vegetables), or for the raising of livestock including poultry) and the production of livestock products. Holdings of less than one acre on which commercial market gardens, nurseries, poultry farms or hatcheries are operated are also generally included.

There are considerable fluctuations from time to time in the numbers of very small holdings, and it is very difficult to determine in some cases whether or not they are rural holdings within the definition. In addition, in the very dry parts, such as the far west of New South Wales and Queensland and the remoter parts of South Australia and Western Australia, there are large areas of marginal lands sporadically occupied for extensive grazing under short-term lease or other arrangement, and the areas so occupied tend to fluctuate with the seasons. Similarly, there are rugged areas in the mountain country of some States which are also only occasionally occupied.

RURAL HOLDINGS: NUMBER AND AREA

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF RURAL HOLDINGS									
1968-69	76,103	71,056	44,074	29,137	23,004	10,384	317	195	254,270
1969-70	75,908	69,498	43,829	29,035	22,937	10,159	322	193	251,881
1970-71	75,365	68,555	43,399	29,087	22,592	9,926	384	187	249,495
1971-72	74,960	67,714	43,389	29,095	21,997	9,807	419	187	247,568
1972-73	74,587	66,890	42,329	29,001	21,128	9,733	415	172	244,255
TOTAL AREA OF RURAL HOLDINGS (^{'000} hectares)									
1968-69	69,209	15,856	153,358	65,603	111,764	2,667	72,011	140	490,609
1969-70	69,051	15,806	153,869	65,839	113,643	2,637	73,700	137	494,683
1970-71	69,229	15,760	154,693	65,796	114,569	2,631	74,401	136	497,216
1971-72	69,001	15,884	154,404	65,146	114,471	2,607	77,889	133	499,535
1972-73	68,849	15,771	155,136	65,372	113,961	2,592	78,011	124	499,815

Land utilisation on rural holdings

The following table shows the purposes for which the land on the rural holdings referred to in the preceding paragraphs was used.

RURAL HOLDINGS: LAND UTILISATION
(^{'000 hectares)})

<i>Year</i>	<i>Area used for crops(a)</i>	<i>Land lying fallow(b)</i>	<i>Area under sown pastures and grasses</i>	<i>Balance of holdings(c)</i>	<i>Total area of holdings</i>
1972-73—					
New South Wales	4,329	1,131	5,714	57,675	68,849
Victoria	1,934	804	6,456	6,577	15,771
Queensland	1,960	378	2,902	149,896	155,136
South Australia	2,084	294	3,230	59,765	65,372
Western Australia	3,855	356	6,786	102,964	113,961
Tasmania	80	11	856	1,645	2,592
Northern Territory	12	1	146	77,851	78,011
Australian Capital Territory	1	..	41	81	124
Australia	14,256	2,975	26,130	456,454	499,815
1971-72	14,240	2,807	27,705	454,783	499,535
1970-71	13,395	3,640	28,031	452,149	497,216
1969-70	15,638	2,884	26,217	449,944	494,683
1968-69	16,598	3,855	24,179	445,977	490,609

(a) Excludes (i) duplication on account of area double cropped, (ii) pastures and grasses cut for hay and seed which have been included in Area under sown pastures and grasses, and differs therefore from crop area figures shown later in this chapter. (b) Excludes short or summer fallow. (c) Used for grazing, lying idle, etc.

Classification by size and type of activity

Some of the information obtained from the 1968-69 Agricultural Census has been classified by size of principal characteristics (area of holdings, area of sown grasses and clovers, area of selected crops, and numbers of livestock). In addition, all holdings have been classified according to type of activity. Tables showing this information, for statistical divisions and States, and an outline of the methods used have been published in a series of bulletins *Classification of Rural Holdings by Size and Type of Activity, 1968-69*. Similar information was published in a series of bulletins for the years 1959-60 and 1965-66. Classifications of holdings by size of principal characteristics are available for each State for the years 1947-48, 1949-50 and 1955-56.

CROPS

In this section statistics relating to crop areas and production are obtained from the annual Agricultural Census. In most instances, the figures shown relate to 1972-73; in some cases however, figures for more recent periods are shown.

The census returns are collected in all States, the Northern Territory and the Australian Capital Territory, at 31 March each year, and relate mainly to crops sown in the previous twelve months. Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed and in others for the inclusion of the total estimated yield expected from the complete harvest. In cases where additional data are available from marketing authorities or other sources these are used in conjunction with the annual census returns. The statistics published in this section are therefore shown in 'agricultural' years. For most purposes there will be little error involved in considering them as applying to years ended 30 June.

Progress of cultivation

The following table shows the area of crops in each of the States and Territories of Australia at ten-yearly intervals since 1860-61 and during each of the twelve seasons 1961-62 to 1972-73.

AREA OF CROPS(a): 1860-61 TO 1972-73

('000 hectares)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1860-61	100	157	2	145	10	62	..	..	475
1870-71	156	280	21	325	22	64	..	..	868
1880-81	245	627	46	846	26	57	..	..	1,846
1890-91	345	822	91	847	28	64	..	..	2,197
1900-01	990	1,260	185	959	81	91	..	..	3,567
1910-11	1,370	1,599	270	1,112	346	116	..	..	4,813
1920-21	1,807	1,817	316	1,308	730	120	..	1	6,099
1930-31	2,756	2,718	463	2,196	1,939	108	1	2	10,184
1940-41	2,580	1,808	702	1,722	1,630	103	..	2	8,546
1950-51	1,927	1,836	841	1,543	1,882	117	n.a.	2	8,148
1960-61	3,255	2,363	1,237	2,185	2,781	144	1	3	11,969
1961-62	3,354	2,277	1,301	2,033	2,878	147	1	3	11,994
1962-63	3,603	2,557	1,412	2,224	3,028	160	1	3	12,987
1963-64	3,641	2,469	1,483	2,418	2,798	154	1	3	12,968
1964-65	4,182	2,621	1,605	2,414	3,037	163	2	4	14,028
1965-66	3,663	2,517	1,667	2,440	3,513	156	2	3	13,961
1966-67	5,027	2,738	1,864	2,626	3,568	180	2	4	16,007
1967-68	4,590	2,208	1,883	2,191	3,592	106	6	2	14,578
1968-69	5,509	2,529	2,071	2,596	3,838	110	6	3	16,665
1969-70	4,999	2,212	2,208	2,290	3,912	98	6	2	15,728
1070-71	3,965	1,746	1,829	1,998	3,826	84	2	1	13,450
1971-72	4,188	1,936	2,064	2,278	3,752	70	7	1	14,295
1972-73	4,382	1,948	2,019	2,084	3,856	83	12	1	14,386

(a) The classification of crops was revised in 1971-72 and adjustments made to statistics back to 1967-68. After 1966-67 lucerne for green feed, hay and seed, and pasture cut for hay are excluded.

Distribution of crops

The wide range of climatic and soil conditions over the agricultural regions of Australia has resulted in a diversity of crops being grown throughout the country. Generally, cereal crops (excluding rice and sorghum) are grown in all States over wide areas, while other crops are confined to specific locations in a few States.

AREA OF CROPS, 1972-73
(Hectares)

<i>Crop</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Cereals for grain—									
Wheat	2,618,065	1,087,377	470,622	986,066	2,437,412	4,251	..	289	7,604,082
Barley—									
2-row	228,722	268,539	71,318	676,458	528,392	11,373	..	..	1,784,802
6-row	107,119	8,546	6,604	15,646	215,756	1,429	..	..	355,100
Oats	285,182	254,656	10,442	141,502	296,666	6,477	..	128	995,053
Grain sorghum	269,002	153	414,133	..	2,842	..	11,032	..	697,162
Maize	23,850	496	34,913	..	(a)	..	(a)	..	(b)59,259
Rye	2,928	2,615	(a)	15,200	7,427	28	..	..	(b)28,198
Rice	40,915	..	4,235	..	..	..	(a)	..	(b)45,150
Panicum and millet	340	656	26,163	..	..	..	..	..	27,159
Canary seed	1,638	(a)	4,855	243	165	..	..	..	(b)6,901
Legumes mainly for grain—									
Cow, field and poona peas	4,617	4,628	2,426	8,699	1,129	1,146	..	..	22,645
Soy beans	5,578	11	22,374	..	..	..	..	..	27,963
Navy beans	354	..	9,005	..	..	157	..	..	9,516
Other	1,521	40	..	584	44,341	31	2	..	46,519
Crops for hay—									
Wheat	37,310	28,053	4,459	20,074	30,478	991	..	(c)	(b)121,365
Barley	2,542	4,393	673	16,191	8,644	270	..	..	32,713
Oats	33,794	105,956	3,545	52,636	92,313	3,030	..	209	291,483
Rye	112	825	..	272	158	159	..	..	1,526
Other	303	126	4,275	..	1,146	..	321	2	6,173
Crops for green feed or silage—									
Wheat	24,083	2,229	16,877	795	3,641	637	..	(c)	(b)48,262
Barley	41,639	4,814	18,092	20,931	21,147	1,143	..	..	107,766
Oats	262,335	37,012	259,280	59,562	90,107	15,501	..	445	724,242
Forage sorghum	34,772	1,173	130,589	..	1,740	..	..	..	168,274
Grain sorghum . . . . .	..	1,182	22,422	..	599	..	195	(c)	(b)24,398
Maize	3,844	636	2,959	..	223	15	..	..	7,677
Rye	2,888	547	16	3,261	1,750	129	..	29	8,620
Vegetables for animal feed	24,256	13,383	3,426	2,178	634	8,171	66	(c)	(b)52,114
Other	8,625	12,303	26,807	1,451	4,413	8,250	245	241	62,335
Sugar cane—									
Cut for crushing	9,361	..	232,338	..	..	..	..	..	241,699
Cut for plants	192	..	4,853	..	..	..	..	..	5,045
Other land under sugar cane	6,497	..	30,023	..	..	..	..	..	36,520
Tobacco	898	4,068	4,632	..	..	..	..	..	9,598
Peanuts	336	..	28,787	..	(a)	..	13	..	(b)29,136
Cotton	31,747	..	8,008	..	3,861	..	..	..	43,616
Sunflower	158,635	2,129	80,119	297	660	..	(a)	..	(b)241,840
Rapeseed	17,951	13,674	..	3,872	41,566	79	..	..	77,142
Linseed	6,762	5,843	2,907	534	254	..	..	..	16,300
Safflower	5,782	556	3,257	74	955	..	..	..	10,624
Fruit—									
Tree	27,852	25,451	12,568	16,652	8,448	6,608	39	16	97,634
Small and berry	62	314	131	78	217	615	..	..	1,417
Other	6,973	20	9,412	..	15	..	31	..	16,451
Grapevines	13,274	21,526	1,560	29,528	2,614	..	..	..	68,502
Vegetables	27,454	31,300	24,958	11,085	5,694	10,237	170	49	110,947
All other crops—									
Nurseries	855	1,117	271	161	137	56	2	3	2,602
Hops . . . . .	..	453	..	..	(a)	627	..	..	(b)1,080
Broom millet	366	29	(a)	..	..	..	..	..	(b)395
Other crops n.e.i.	705	947	4,792	331	308	1,513	31	1	8,628
Total area of crops (excluding pastures)	4,382,036	1,947,776	2,019,126	2,084,361	3,855,852	82,923	12,147	1,412	14,385,633
Area of above double-cropped	52,940	13,402	59,618	294	605	3,052	39	97	130,047
Total area used for crops (excluding pastures)	4,329,096	1,934,374	1,959,508	2,084,067	3,855,247	79,871	12,108	1,315	14,255,586
Pastures and grasses cut for hay	230,117	377,333	48,162	120,996	91,178	53,937	1,788	784	924,295
Pastures and grasses harvested for seed	14,719	5,715	23,092	15,436	25,877	840	278	12	85,969
Total area used for crops (including pastures)	4,573,932	2,317,422	2,030,762	2,220,499	3,972,302	134,648	14,174	2,111	15,265,850

(a) Not available for publication, included in 'Other crops, n.e.i.'. (b) Incomplete; see footnotes to individual States.
(c) Not available separately, included in 'Other'.

AREA OF CROPS: AUSTRALIA
(hectares)

Crop	1968-69	1969-70	1970-71	1971-72	1972-73
Cereals for grain—					
Wheat	10,845,345	9,485,958	6,478,418	7,137,852	7,604,082
Barley—					
2-row	1,060,280	1,177,589	1,531,534	2,037,655	1,784,802
6-row	280,715	343,574	468,523	497,765	355,100
Oats	1,566,879	1,374,347	1,553,169	1,240,586	995,053
Grain sorghum	209,694	358,746	552,184	638,392	697,162
Maize	66,516	79,605	85,635	78,193	59,259
Rye	39,256	34,244	40,707	41,458	28,198
Rice	33,697	40,163	38,054	40,494	45,150
Panicum and millet	28,409	38,408	49,158	23,952	27,159
Canary seed	9,524	27,667	8,869	6,260	6,901
Legumes mainly for grain—					
Cow, field and poona peas	23,142	31,326	32,261	36,187	22,645
Soy beans	2,093	4,967	7,326	18,019	27,963
Navy beans	4,053	5,266	4,624	8,412	9,516
Other . . . . .	..	14	272	(a)34,450	(a)46,519
Crops for hay—					
Wheat	107,648	138,942	75,782	80,501	121,365
Barley	22,100	24,098	23,375	19,680	32,713
Oats	288,161	252,604	236,541	234,486	291,483
Rye	3,614	3,286	2,887	1,780	1,526
Other	6,497	9,096	10,457	4,610	6,173
Crops for green feed or silage—					
Wheat	71,707	110,537	77,327	34,829	48,262
Barley	91,093	120,153	116,360	94,404	107,766
Oats	869,293	971,645	884,511	608,737	724,242
Forage sorghum	123,393	158,176	168,359	110,537	168,274
Grain sorghum				28,346	24,398
Maize	8,707	9,708	5,379	7,396	7,677
Rye	11,055	11,698	10,429	8,984	8,620
Vegetables for animal feed	23,216	21,439	14,267	47,184	52,114
Other	133,826	131,259	119,187	57,515	62,335
Sugar cane—					
Cut for crushing	230,056	212,790	220,521	233,737	241,699
Cut for plants	5,630	5,785	5,232	5,191	5,045
Other land under sugar cane	41,612	56,747	50,349	38,787	36,520
Tobacco	10,422	10,790	10,900	10,045	9,598
Peanuts	31,823	33,598	38,584	33,746	29,136
Cotton	34,350	31,706	34,534	39,649	43,616
Sunflower	13,642	25,997	75,568	295,011	241,840
Rapeseed	n.a.	4,865	42,887	86,950	77,142
Linseed	28,570	49,224	41,626	19,923	16,300
Safflower	18,767	10,825	27,674	33,809	10,624
Fruit—					
Tree	106,443	105,814	104,307	104,335	97,634
Small and berry	1,189	1,219	1,223	1,262	1,417
Other	18,004	18,200	17,742	17,492	16,451
Grapevines	57,898	60,848	63,783	66,515	68,502
Vegetables	120,494	119,214	107,206	117,016	110,947
All other crops—					
Nurseries	2,169	2,417	2,366	2,489	2,602
Hops	968	936	893	948	1,080
Broom millet	1,400	780	558	516	395
Other crops n.e.i.	12,053	12,200	8,577	8,594	8,628
Total area of crops (excluding pastures)	16,665,403	15,728,470	13,450,125	14,294,679	14,385,633
Area of above double-cropped	67,123	90,666	55,340	54,626	130,047
Total area used for crops (excluding pastures)	16,598,280	15,637,804	13,394,785	14,240,053	14,255,586
Pastures and grasses cut for hay	1,172,464	863,851	1,011,437	1,147,618	924,295
Pastures and grasses harvested for seed	138,706	137,209	133,068	108,393	85,969
Total area used for crops (including pastures)	17,909,450	16,638,864	14,539,290	15,496,064	15,265,850

(a) Mainly lupins for processing; not collected separately prior to 1971-72.

Production and yield per hectare of crops

PRODUCTION OF CROPS (EXCLUDING PASTURES), 1973

Crop	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for grain—									
Wheat	'000 tonnes	1,954	1,249	405	815	2,003	8	..	6,434
Barley—									
2-row	"	168	207	74	498	478	17	..	1,441
6-row	"	98	7	6	11	163	2	..	286
Oats	"	196	238	8	74	212	7	..	736
Grain sorghum	"	372	..	622	..	7	..	17	1,018
Maize	"	67	2	70	..	(a)	..	(a)	(b)139
Rye	"	1	1	(a)	3	3	..	..	(b)9
Rice	"	292	..	16	..	..	..	(a)	(b)309
Panicum and millet	"	..	1	26	..	..	..	..	26
Canary seed	"	1	(a)	3	..	..	..	..	(b)4
Legumes mainly for grain—									
Cow, field and poona peas	tonnes	2,527	4,236	972	6,310	227	1,047	..	15,319
Soy beans	"	7,661	14	30,262	..	..	(a)	..	(b)37,937
Navy beans	"	76	..	1,424	..	299	..	..	1,799
Crops for hay—									
Wheat	"	84,076	79,001	8,715	52,795	72,327	3,685	..	300,599
Barley	"	5,475	11,104	1,580	29,805	19,598	1,103	..	68,665
Oats	"	84,706	348,266	10,956	119,980	255,122	12,075	..	831,416
Rye	"	216	2,648	..	472	590	594	..	4,520
Other	"	889	556	12,992	..	3,554	..	878	18,869
Sugar cane cut for crushing	'000 tonnes	841	..	18,087	..	..	..	..	18,928
Tobacco	'000 kg	1,449	5,769	8,203	..	..	..	..	15,422
Peanuts	tonnes	504	..	37,992	..	(a)	..	..	(b)38,496
Cotton	'000 kg	71,906	..	13,464	..	11,271	..	..	96,641
Sunflower	tonnes	54,260	2,046	45,428	..	308	..	(a)	(b)102,069
Rapeseed	"	10,606	8,016	..	2,205	8,526	4	..	29,357
Linseed	"	1,889	5,471	1,948	1,316	64	..	..	10,688
Safflower	"	1,538	328	2,126	46	135	..	..	4,173
Grapes	"	111,106	228,676	4,719	243,897	9,970	..	..	598,368
Hops	'000 kg	..	663	..	..	(a)	1,450	..	(b)2,113
Broom millet—									
Grain	tonnes	84	10	(a)	..	..	..	..	(b)94
Fibre	"	294	25	(a)	..	..	..	..	(b)319

(a) Not available for publication. (b) Incomplete; see footnotes to individual States.

PRODUCTION OF CROPS (EXCLUDING PASTURES): AUSTRALIA

Crop	1968-69	1969-70	1970-71	1971-72	1972-73	
Cereals for grain—						
Wheat	'000 tonnes	14,804	10,547	7,890	8,510	6,434
Barley—						
2-row	"	1,325	1,398	1,783	2,571	1,441
6-row	"	321	300	567	495	286
Oats	"	1,710	1,247	1,613	1,275	736
Grain sorghum	"	294	547	1,297	1,228	1,018
Maize	"	149	192	212	214	139
Rye	"	16	11	22	22	9
Rice	"	256	247	299	242	309
Panicum and millet	"	19	34	58	24	26
Canary seed	"	6	18	5	4	4
Legumes mainly for grain—						
Cow, field and poona peas	tonnes	24,044	26,550	27,301	39,002	15,319
Soy beans	"	1,740	5,028	9,207	33,629	37,937
Navy beans	"	846	2,531	1,121	6,504	1,799
Crops for hay—						
Wheat	"	398,075	443,314	260,147	265,408	300,599
Barley	"	72,324	72,575	68,475	62,926	68,665
Oats	"	1,224,659	968,349	925,456	893,317	831,416
Rye	"	16,058	14,037	13,573	7,817	4,520
Other	"	16,851	15,310	5,915	17,075	18,869
Sugar cane, cut for crushing						
	'000 tonnes	18,708	15,784	17,645	19,391	18,928
Tobacco	'000 kg	15,455	17,034	17,128	16,015	15,422
Peanuts	tonnes	16,980	42,717	31,123	46,060	38,496
Cotton	'000 kg	103,337	84,913	56,751	131,971	96,641
Sunflower	tonnes	6,248	13,249	58,949	147,931	102,069
Rapeseed	"	n.a.	4,464	33,619	54,614	29,357
Linseed	"	19,809	36,673	30,805	10,229	10,688
Safflower	"	10,341	4,164	9,351	15,398	4,173
Grapes	"	553,411	757,629	549,378	831,878	598,368
Hops	'000 kg	2,172	2,048	1,706	1,847	2,113
Broom millet—						
Grain	tonnes	643	174	113	76	94
Fibre	"	1,174	519	327	367	319

YIELD PER HECTARE OF CROPS (EXCLUDING PASTURES): AUSTRALIA

<i>Crop</i>		1968-69	1969-70	1970-71	1971-72	1972-73
Cereals for grains—						
Wheat	tonnes	1.365	1.112	1.218	1.192	0.846
Barley—						
2-row	"	1.250	1.187	1.164	1.262	0.807
6-row	"	1.143	0.875	1.211	0.994	0.806
Oats	"	1.091	0.907	1.038	1.028	0.740
Grain sorghum	"	1.404	1.526	2.350	1.924	1.460
Maize	"	2.241	2.407	2.471	2.736	2.343
Rye	"	0.414	0.332	0.544	0.529	0.305
Rice	"	7.587	6.143	7.859	5.979	6.834
Panicum and millet	"	0.671	0.897	1.177	0.984	0.974
Canary seed	"	0.587	0.640	0.578	0.635	0.554
Legumes mainly for grain—						
Cow, field and poona peas	"	1.039	0.848	0.846	1.078	0.676
Soy beans	"	0.831	1.012	1.257	1.866	1.357
Navy beans	"	0.209	0.481	0.242	0.773	0.189
Crops for hay—						
Wheat	"	3.698	3.191	3.443	3.297	2.477
Barley	"	3.273	3.012	2.929	3.197	2.099
Oats	"	4.250	3.833	3.912	3.810	2.852
Rye	"	4.443	4.272	4.701	4.392	2.962
Other	"	2.634	1.683	0.566	1.535	3.057
Sugar cane,						
cut for crushing	"	81.321	74.178	80.014	82.959	78.314
Tobacco	'000 kg	1.483	1.579	1.571	1.594	1.607
Peanuts	tonnes	0.534	1.271	0.807	1.365	1.321
Cotton	'000 kg	3.008	2.678	1.643	3.329	2.216
Sunflower	tonnes	0.458	0.510	0.780	0.501	0.422
Rapeseed	"	n.a.	0.918	0.784	0.628	0.381
Linseed	"	0.693	0.745	0.740	0.513	0.656
Safflower	"	0.551	0.385	0.338	0.455	0.393
Grapes(a)	"	10.734	14.555	10.266	14.721	10.014
Hops	'000 kg	2.244	2.188	1.910	1.948	1.956
Broom millet—						
Grain	tonnes	0.459	0.223	0.203	0.147	0.238
Fibre	"	0.839	0.665	0.586	0.711	0.808

(a) Yield per bearing hectare only.

Value of crop production

Further reference to the value of crop production and other industries in Australia as well as a brief explanation of the terms used may be found in Chapter 31, Miscellaneous.

GROSS VALUE OF CROPS, 1972-73
(*\$'000*)

<i>Crop</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Cereals for grain—									
Barley	16,880	11,352	4,632	27,506	29,523	983	..	..	90,876
Maize	4,664	96	3,924	..	..	..	..	..	8,684
Oats	12,237	8,345	676	3,974	5,793	511	..	4	31,540
Panicum, millet and setaria	16	178	2,096	..	..	..	..	..	2,290
Rice	23,674	..	1,321	..	..	..	(a)	..	(b)24,995
Rye	87	47	..	240	106	1	..	..	481
Sorghum	25,444	12	31,989	..	371	..	1,141	..	58,957
Wheat	103,872	68,263	21,527	44,588	109,399	402	..	21	348,072
<i>Total cereals for grain</i>	<i>186,874</i>	<i>88,292</i>	<i>66,166</i>	<i>76,308</i>	<i>145,192</i>	<i>1,896</i>	<i>1,141</i>	<i>25</i>	<i>565,895</i>
Fodder—									
Crops for hay	32,627	53,955	13,087	13,831	19,947	4,831	193	100	138,571
Green feed	14,209	(c)	17,359	(d)1,220	(c)	3,548	12	17	(b)36,365
Other stock fodder	287	489	175	705	23	112	..	..	1,791
<i>Total fodder</i>	<i>47,123</i>	<i>54,444</i>	<i>30,621</i>	<i>15,756</i>	<i>19,970</i>	<i>8,491</i>	<i>205</i>	<i>117</i>	<i>176,727</i>
Grass seed	3,032	723	2,113	3,023	2,129	79	42	(a)	(b)11,141
Industrial crops—									
Cotton	27,756	..	3,537	..	1,332	..	..	..	32,625
Flax for linseed	204	590	195	47	8	..	..	..	1,044
Hops . . . . .	..	1,419	..	..	(a)	2,844	..	..	(b)4,263
Peanuts	200	..	10,334	..	5	..	..	..	10,539
Safflower	177	34	241	5	12	..	..	..	469
Sugar cane—									
Cut for crushing	7,661	..	222,547	..	..	..	..	..	230,208
Cut for plants . . . . .	..	..	3,966	..	..	..	..	..	3,966
Sunflower	8,682	261	6,384	37	2	..	..	..	15,366
Tobacco (dried leaf)	3,492	13,918	20,486	..	..	..	..	..	37,896
Other	1,268	897	440	218	1,016	4	..	..	3,843
<i>Total industrial crops</i>	<i>49,440</i>	<i>17,119</i>	<i>268,130</i>	<i>307</i>	<i>2,375</i>	<i>2,848</i>	<i>..</i>	<i>..</i>	<i>340,219</i>
Vegetables for human consumption—									
Onions	2,156	1,336	2,197	2,421	573	764	1	6	9,454
Potatoes	11,648	16,478	6,059	5,796	6,272	4,480	51	(a)	(b)50,784
Tomatoes	20,880	4,503	9,141	7,071	2,387	265	28	(a)	(b)44,275
Other	23,326	17,118	16,341	10,053	5,622	5,389	165	151	78,165
<i>Total vegetables</i>	<i>58,010</i>	<i>39,435</i>	<i>33,738</i>	<i>25,341</i>	<i>14,854</i>	<i>10,898</i>	<i>245</i>	<i>157</i>	<i>182,678</i>
Grapes—									
Table use	1,832	2,476	1,756	384	382	..	..	..	6,830
Wine	6,151	2,415	37	18,167	426	..	..	..	27,196
Currants, dried	243	1,286	..	1,072	422	..	..	..	3,023
Raisins, dried	586	1,786	..	246	9	..	..	..	2,627
Sultanas, dried	4,001	20,009	..	1,180	6	..	..	..	25,196
<i>Total grapes</i>	<i>12,813</i>	<i>27,972</i>	<i>1,792</i>	<i>21,049</i>	<i>1,245</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>64,871</i>
Fruit (excl. grapes)	68,431	49,856	39,117	33,366	14,248	18,376	106	24	223,524
Nurseries and cut flowers	9,602	4,497	3,585	2,508	2,274	650	32	36	23,184
All other crops	881	357	6,875	110	1,130	455	1	2	9,811
Total	436,206	282,696	452,137	177,768	203,417	43,693	1,773	360	1,598,050

(a) Not available for publication; included in "All other crops". (b) Incomplete; see individual States. (c) No value placed on green feed. (d) Incomplete; excludes lucerne sown as pasture for grazing.

GROSS VALUE OF CROPS, AUSTRALIA
(S'000)

<i>Crop</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Cereals for grain—					
Barley	70,531	65,982	110,789	124,177	90,876
Maize	8,639	10,532	10,393	10,375	8,684
Oats	58,763	33,351	54,283	37,391	31,540
Panicum, millet and setaria	1,083	1,791	3,107	1,549	2,290
Rice(a)	14,358	14,533	13,720	11,942	24,995
Rye	683	518	1,048	817	481
Sorghum	13,861	24,121	57,382	51,092	58,957
Wheat	731,334	531,127	403,550	457,370	348,072
<i>Total cereals for grain</i>	<i>899,251</i>	<i>681,954</i>	<i>654,271</i>	<i>694,715</i>	<i>565,895</i>
Fodder—					
Crops for hay	166,284	114,742	115,797	107,376	138,571
Green feed(a)	32,577	35,369	29,743	22,860	36,365
Other stock fodder	7,363	6,290	4,837	3,708	1,791
<i>Total fodder</i>	<i>206,223</i>	<i>156,401</i>	<i>150,377</i>	<i>133,944</i>	<i>176,727</i>
Grass seed(a)	12,692	11,316	9,620	8,017	11,141
Industrial crops—					
Cotton	20,964	19,073	13,292	30,765	32,625
Flax for linseed	2,233	4,337	3,522	1,037	1,044
Hops(a)	3,788	3,588	3,133	3,621	4,263
Peanuts	3,152	8,985	7,998	12,234	10,539
Safflower	997	422	984	1,440	469
Sugar cane—					
Cut for crushing	156,008	148,054	173,300	207,388	230,208
Cut for plants	2,708	3,159	3,248	3,429	3,966
Sunflower	595	1,531	7,340	16,237	15,366
Tobacco (dried leaf)	38,528	38,930	42,528	40,995	37,896
Other	2,175	3,103	3,626	5,830	3,843
<i>Total industrial crops</i>	<i>231,146</i>	<i>231,181</i>	<i>258,970</i>	<i>322,978</i>	<i>340,219</i>
Vegetables for human consumption—					
Onions	6,366	6,692	7,768	11,452	9,454
Potatoes(a)	43,399	40,575	57,181	45,375	50,784
Tomatoes(a)	26,237	25,592	28,743	29,370	44,275
Other	62,181	66,153	75,358	75,972	78,165
<i>Total vegetables</i>	<i>138,186</i>	<i>139,013</i>	<i>169,053</i>	<i>162,172</i>	<i>182,678</i>
Grapes—					
Table use	5,161	7,092	6,483	7,153	6,830
Wine	18,549	23,016	20,048	25,080	27,196
Currants, dried	2,957	3,344	2,997	3,306	3,023
Raisins, dried	2,000	1,487	1,971	2,773	2,627
Sultanas, dried	15,933	23,773	14,317	27,991	25,196
<i>Total grapes</i>	<i>44,602</i>	<i>58,712</i>	<i>45,815</i>	<i>66,306</i>	<i>64,871</i>
Fruit (excl. grapes)	165,877	193,000	199,489	186,181	223,524
Nurseries and cut flowers	15,584	18,448	19,828	21,702	23,184
All other crops	3,703	4,398	4,554	11,767	9,811
Total	1,717,268	1,494,419	1,511,982	1,607,786	1,598,050

(a) Incomplete. See footnotes to previous table.

Values of crop production in the various States and Territories are shown in the following table. In computing the net value of production, no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant.

**GROSS, LOCAL AND NET VALUES OF CROP PRODUCTION
STATES AND TERRITORIES, 1972-73**
(\$'000)

<i>State or Territory</i>	<i>Gross production valued at principal markets</i>	<i>Marketing costs</i>	<i>Local value of production</i>	<i>Value of materials used in process of production</i>	<i>Net value of production (a)</i>
New South Wales	436,206	80,986	355,220	(b)36,629	318,591
Victoria	282,696	36,786	245,910	27,777	218,133
Queensland	452,137	43,223	408,914	81,480	327,434
South Australia	177,768	19,001	158,767	27,643	131,124
Western Australia	203,417	31,724	171,693	37,343	134,350
Tasmania	43,693	11,779	31,913	6,662	25,251
Northern Territory	1,773	..	1,773	..	1,773
Australian Capital Territory	360	80	281	29	252
Australia	1,598,050	223,579	1,374,471	217,563	1,156,908

(a) No deduction has been made for depreciation and maintenance. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils.

Wheat

Wheat is grown on a large scale in all States except Tasmania, and is the most important crop in Australia in terms of area, production and exports. The present limits of the wheat belt have been established after considerable fluctuation over the last four decades, the latest decade bringing one of considerable expansion. In January 1934 a Royal Commission was appointed to inquire into and report upon the economic condition of the growing, handling and marketing of wheat, and the manufacturing, distributing and selling of flour and bread. The Report of this Royal Commission provides an authoritative description of all aspects of the industry up to that time.

It should be noted that from the 1972-73 season, production of wheat was reported in metric units. The *standard unit of reporting is a tonne* and consequently, figures relating to production of wheat are expressed in tonnes. Conversion of previous years series was made by using a factor of 1 tonne = 36.7437 bushels.

Wheat standards

A description of the F.A.Q. (fair average quality) standard of wheat is given in issues of the Year Book up to No. 53. However, over recent years there has been an extension of the system and Australian wheat is now marketed under eleven main different and distinct classifications. Each reflects the climatic and growing characteristics of its region of origin and also the particular characteristics of the varieties of wheat cultivated.

For each classification, samples of wheat are obtained each year and are mixed to give a representative sample of that grade. From these samples, which are representative of all the wheat of a particular classification grown in that region, standards for each grade are established and expressed, since the recording of wheat production in metric units in 1972-73, in kilograms per hectolitre. This standard is used as the basis for sales of each grade and varies from year to year and from State to State. Below is a table showing the standard weight of the main wheat varieties over a five year period.

AUSTRALIAN STANDARD WEIGHTS FOR PRINCIPAL GRADES

(Source: Australian Wheat Board)

(kilograms per hectolitre)

State and grade	1969-70	1970-71	1971-72	1972-73	1973-74
New South Wales—					
Prime hard	77.7	78.6	78.3	78.0	77.0
Northern hard	78.0	78.6	79.6	81.5	76.4
South-western F.A.Q.	78.6	77.4	78.3	80.5	76.0
Victoria—					
F.A.Q.	81.7	81.1	80.5	82.3	77.6
Queensland—					
Prime hard	80.5	79.6	78.6	80.2	76.3
Hard	79.2	78.6	(a)	76.2	78.0
Southern prime hard	(a)	(a)	79.2	(a)	(a)
South Australia—					
Hard	78.3	77.7	76.8	80.7	77.0
F.A.Q.	78.6	78.6	78.3	81.6	76.0
Western Australia—					
F.A.Q.	78.6	79.9	79.9	78.6	77.8

(a) Not fixed.

The several F.A.Q. grades, while possessing some characteristics in common, vary in protein content, milling characteristics, and dough qualities, and all are distinct grades. Similarly, the prime hard, hard and soft grades are individual grades segregated on the basis of specific quality characteristics.

In a normal season Australia produces a full range of wheats for all purposes from high protein hard wheats to low protein soft wheats.

Bulk handling and storage of wheat

Bulk handling is general and has been in operation in all States for a considerable time. The bodies concerned with the administration of bulk handling in the various States are: Grain Elevators Board of New South Wales, Victorian Grain Elevators Board, State Wheat Board (Queensland), South Australian Co-operative Bulk Handling Ltd, Co-operative Bulk Handling Ltd (Western Australia), and the Tasmanian Grain Elevators Board.

WHEAT: TOTAL CAPACITY OF BULK HANDLING FACILITIES(a)

(Source: Bulk handling authorities in the various States, see above)

('000 tonnes)

State	30 November				
	1969	1970	1971	1972	1973
New South Wales	5,786	6,368	5,763	5,823	5,797
Victoria(b)	3,538	3,602	3,884	3,884	3,893
Queensland	947	985	1,129	1,189	1,265
South Australia	2,599	2,582	2,555	2,545	2,595
Western Australia	2,280	5,525	5,851	5,898	6,556
Tasmania	29	29	29	29	29
Australia	15,179	19,091	19,212	19,368	20,135

(a) Includes terminals, sub-terminals, country installations, and temporary storage. (b) Includes storage in southern New South Wales operated by the Victorian Grain Elevators Board.

Rural holdings growing wheat for grain

Particulars of the number of rural holdings growing wheat for grain during each of the years 1968-69 to 1972-73 are shown in the following table. A farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF RURAL HOLDINGS GROWING WHEAT FOR GRAIN^(a)

<i>State or Territory</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
New South Wales	21,340	20,608	18,537	18,723	17,777
Victoria	11,722	11,618	9,669	10,273	10,002
Queensland	6,063	4,982	2,816	4,503	3,439
South Australia	9,884	9,529	8,548	8,997	8,578
Western Australia	8,964	8,922	8,677	8,559	8,334
Tasmania	239	203	403	160	147
Australian Capital Territory	27	16	9	8	8
Australia	58,239	55,878	48,659	51,223	48,285

(a) Approximately 8 hectares and over; recorded as 20 acres and over.

There is in Australia a widespread combination of wheat growing with other rural activities. This is illustrated, for all States and for Australia, in respect of the 1968-69 season, in a series of statistical bulletins *Classification of Rural Holdings by Size and Type of Activity*, 1968-69, Nos 1 to 7. These publications also contain details of numbers of rural holdings classified according to area of wheat for grain.

Varieties of wheat sown

The breeding of wheat suitable to local conditions has long been established in Australia. Farrer (1845-1905) did invaluable work in pioneering this field, and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in the development of disease-resistant varieties, better average yields, and a greater uniformity of sample, with which have accrued certain marketing advantages as well as an improvement in the quality of wheat grown. In 1968 the Australian Wheat Collection was established at Tamworth, New South Wales, to supply basic genetic material to Australian wheat breeders. Some 15,000 varieties are at present held in the collection.

The principal varieties of wheat sown and the percentage of each to the total area sown in the five main wheat-producing States of Australia in 1972-73 were as follows: New South Wales, Timgalen (13.9), Olympic (13.8), Heron (13.6); Victoria, Insignia (22.8), Olympic (21.4), Summit (18.3); Queensland, Gatcher (29.1), Mendos (21.3), Timgalen (17.4); South Australia, Halberd (45.2), Heron (15.1), Gabo (8.4); and Western Australia, Gamenya (62.5), Falcon (13.6), Insignia (4.9). A detailed table of wheat varieties sown appears in the annual bulletin *The Wheat Industry, (Preliminary)* (10.35).

Wheat area and production

Prominent factors in the early development of the wheat industry were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphate as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

WHEAT FOR GRAIN: AREA AND PRODUCTION

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA ('000 HECTARES)								
1969-70 . . .	3,489	1,335	609	1,299	2,747	6	1	9,486
1970-71 . . .	2,216	760	334	802	2,361	4	..	6,478
1971-72 . . .	2,426	1,040	556	1,069	2,042	5	..	7,138
1972-73 . . .	2,618	1,087	471	986	2,437	4	..	7,604
1973-74p . . .	2,884	1,262	397	1,432	2,978	3	..	8,956
PRODUCTION ('000 TONNES)								
1969-70 . . .	4,430	2,274	405	1,610	1,815	10	2	10,547
1970-71 . . .	3,010	1,004	120	790	2,957	8	1	7,890
1971-72 . . .	2,410	1,797	722	1,407	2,165	8	1	8,510
1972-73 . . .	1,954	1,249	405	815	2,003	8	..	6,434
1973-74p . . .	3,963	1,596	526	1,795	4,211	4	..	12,094

A graph showing the area sown to wheat for grain in Australia for the years 1900-01 to 1970-71 appears in Year Book No. 58, Plate 39, page 746, and a map showing the distribution of areas growing wheat for grain throughout Australia in 1962-63 appears on page 1013 of Year Book No. 50. Similar maps showing the distribution of wheat areas in 1924-25, 1938-39, 1947-48, and 1954-55 appeared respectively in Year Books No. 22, page 695, No. 34, page 451, No. 39, pages 977-8, and No. 43, page 833.

The size of the wheat harvest in Australia is determined largely by the nature of the season, resulting in considerable year-to-year fluctuations in production. The main wheat-producing States of Australia are New South Wales, Western Australia and Victoria. Tasmania imports wheat from the mainland to satisfy its needs, though it exports flour made from local wheat which is particularly suitable for biscuits. The production of wheat from 1940-41 is shown in Plate 45, below.

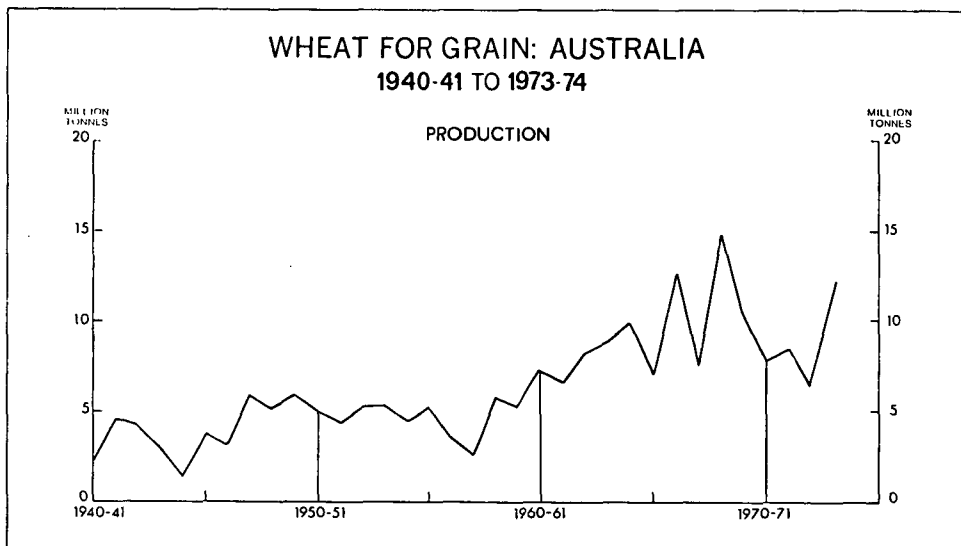


PLATE 45

Price of wheat

The Wheat Board's monthly basic export selling prices for f.a.q. bulk wheat, f.o.b. basis, are shown below.

MONTHLY EXPORT WHEAT PRICES^(a)

(\$ per tonne)

Month	1969-70	1970-71	1971-72	1972-73	1973-74
July	50.89	46.99	52.50	49.05	92.46
August	50.11	47.40	51.53	51.17	131.91
September	48.46	49.19	49.88	61.18	138.98
October	48.46	50.94	48.92	71.52	134.57
November	48.46	51.99	48.55	73.99	134.67
December	48.46	52.27	48.13	83.09	134.94
January	48.13	53.19	47.95	82.44	141.92
February	48.13	52.87	47.95	72.52	148.31
March	47.49	52.87	47.95	70.18	150.74
April	46.99	52.68	48.73	70.23	149.27
May	46.85	52.50	48.96	73.90	123.78
June	47.03	52.31	48.69	83.13	110.23

(a) Australian Wheat Board average basis f.o.b. price quoted for f.a.q. bulk wheat. Much of the wheat exported is sold under contract for delivery over lengthy periods, and therefore, the prices shown do not necessarily reflect the prices received for all wheat shipped during the months shown.

Production and disposal of wheat in Australia

In the following tables details are given of Australian Wheat Board transactions, production and disposal of wheat during each of the years ended 30 November 1970 to 1973, and preliminary estimates for 1973-74.

RECEIVALS OF WHEAT BY THE AUSTRALIAN WHEAT BOARD

('000 tonnes)

State	Year ended 30 November				
	1969-70	1970-71	1971-72	1972-73	1973-74 ^p
New South Wales	3,966	2,555	2,008	1,455	3,530
Victoria	2,337	894	1,753	1,169	1,508
Queensland	326	90	666	325	474
South Australia	1,516	681	1,306	711	1,671
Western Australia	1,598	2,712	1,927	1,775	3,988
Tasmania	5	3	5	4	2
Total	9,747	6,935	7,665	5,439	11,173

Stocks of wheat (including flour in terms of wheat) held by the Australian Wheat Board are shown in the following table. These data relate to stocks held at mills, sidings, ports, and depots as recorded by the Australian Wheat Board.

STOCKS OF WHEAT, AND FLOUR AS WHEAT

(Source: Australian Wheat Board)

('000 tonnes)

State	30 November				
	1969	1970	1971	1972	1973
New South Wales	2,304.1	2,629.3	1,504.7	489.2	175.5
Victoria	1,684.5	2,112.2	655.1	399.3	130.3
Queensland	185.1	61.7	2.5	25.7	19.7
South Australia	1,254.5	1,227.8	430.0	278.9	42.6
Western Australia	1,816.1	1,175.0	798.6	244.7	95.9
Tasmania	15.5	15.5	13.4	12.9	13.7
Total	7,259.8	7,221.5	3,404.3	1,450.7	477.7

Particulars of the production and disposal of wheat during the years ended 30 November 1969 to 1973 are shown in the following table.

PRODUCTION, DISPOSAL AND STOCKS OF WHEAT: AUSTRALIA

('000 tonnes)

	Year ended 30 November				
	1969	1970	1971	1972	1973
Opening stocks (including flour as wheat)(a)(b)	1,411	7,260	7,222	3,404	1,451
Production	14,804	10,546	7,890	8,510	6,434
Total available supplies	16,215	17,806	15,112	11,914	7,885
Exports—					
Wheat	5,960	7,569	8,595	7,426	3,855
Flour(c)	408	454	376	256	200
Breakfast foods and other products(b)(c)	52	60	79	77	82
Local consumption—					
Flour(b)(c)	1,211	1,236	1,246	1,276	1,272
Breakfast foods and other products(b)(c)	46	38	38	38	36
Stock feed wheat sales(b)	267	321	395	533	934
Seed	591	389	444	544	602
Balance (including retained on farm for other than seed use)	183	401	513	291	396
Closing stocks (including flour as wheat)(a)(b)	7,260	7,222	3,404	1,451	478
Total disposals	15,978	17,690	15,090	11,892	7,855
Excess (+) or deficiency (–) of disposals in relation to total available supplies(d)	–237	–116	–22	–22	–30

(a) Held at ports, depots, mills and sidings. (b) Source: Australian Wheat Board. (c) In terms of wheat. (d) Includes allowances for unrecorded movements in stocks, gain or loss in out-turn, etc., and in differences related to the timing of official export statistics.

The Wheat Industry Stabilization Act 1948

The *Wheat Industry Stabilization Act* 1948 empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Australian Government. These provisions have been continued in the subsequent legislation, with the exception that advances are now arranged through the Reserve Bank.

AUSTRALIAN WHEAT BOARD: FINANCIAL OPERATIONS (\$'000)

	68/69 Pool (1968-69 Harvest)	69/70 Pool (1969-70 Harvest)	70/71 Pool(a) (1970-71 Harvest)	71/72 Pool(a) (1971-72 Harvest)	72/73 Pool(a) (1972-73 Harvest)
Paid to growers	546,475	311,576	310,592	317,291	265,251
Rail freight	90,644	57,083	50,994	47,638	36,500
Expenses	65,014	54,321	36,394	32,713	37,900
Total payments	702,133	422,980	397,980	397,642	339,651
Value of sales delivered	(b)674,414	(c)396,219	(d)366,635	(e)358,198	(f)327,847

(a) Incomplete. (b) Subject to an additional \$29,008,000 provided by the Australian Government and payment of \$1,289,000 to Wheat Industry Research Fund. (c) Subject to an additional \$27,538,000 provided by the Australian Government and payment of \$778,000 to Wheat Industry Research Fund. (d) Subject to an additional \$32,058,000 to be provided by the Australian Government and payment of \$713,000 to Wheat Industry Research Fund. (e) Subject to an estimated additional \$40,132,000 to be provided by the Australian Government and payment of \$689,000 to the Wheat Industry Research Fund. (f) Subject to an estimated additional \$12,360,000 to be provided by the Australian Government and payment of \$556,000 to the Wheat Industry Research Fund.

Details of earlier pools will be found in previous issues of the Year Book.

Imports of wheat

Wheat and flour have been imported in substantial quantities on four occasions since 1900; in 1902-3 the wheat harvest was only 336,874 tonnes, and wheat and flour equivalent to 339,323 tonnes of wheat were imported. An equivalent of 198,102 tonnes was imported in 1914-15 to supplement the yield of 680,000 tonnes produced in that season. Drought conditions in the Eastern States in 1945 necessitated the importation of feed grains from the U.S.A. including 20,000 tonnes of wheat. Owing to drought conditions in 1957-58 supplies of high protein wheat were insufficient for local requirements and, as a result, 40,415 tonnes were imported from Canada in 1958. No import of wheat has since been recorded.

Exports of wheat and flour

Statistics in the following three tables are for years ended 30 June and relate to the exports of *Australian produce* only.

WHEAT AND FLOUR: EXPORTS, AUSTRALIA (\$'000 f.o.b.)

	1968-69	1969-70	1970-71	1971-72	1972-73
Wheat(a)	258,334	337,570	433,000	418,529	273,096
Flour(b)	23,822	23,011	21,374	15,091	14,579
Total	282,156	360,581	454,374	433,620	287,675

(a) Includes both bulk and bagged. (b) White flour (plain and self-raising), sharps and wheatmeal for baking.

WHEAT: EXPORTS TO VARIOUS COUNTRIES, AUSTRALIA(a)
(^{'000} tonnes)

<i>Country to which exported</i>	1968-69	1969-70	1970-71	1971-72	1972-73
Arab Republic of Egypt . . . . .	..	..	1,313	1,801	777
Chile	105	79	183	297	509
German Democratic Republic . . . . .	..	..	114	170	135
Germany, Federal Republic of . . . . .	..	15	23	273	..
Iraq . . . . .	..	56	436	192	..
Japan	1,147	1,014	821	1,466	752
Korea, Republic of	10	..	27	361	..
Kuwait	68	82	103	104	91
Malaysia	253	283	312	310	300
Peru	154	150	157	155	83
U.S.S.R. . . . .	..	..	..	502	907
United Kingdom	773	1,024	1,745	573	520
Other(b)	2,381	4,183	3,840	2,255	1,317
Total	4,891	6,886	9,074	8,459	5,391

(a) 1973-74 preliminary estimate 5,132,000 tonnes. (b) Includes particulars of shipments made 'for orders' which could not be classified to countries.

The following table shows the exports of flour to various countries in recent years. The figures relate to exports of white flour (plain and self-raising), sharps and wheatmeal for baking.

FLOUR(a): EXPORTS TO VARIOUS COUNTRIES, AUSTRALIA
(tonnes)

<i>Country to which exported</i>	1968-69	1969-70	1970-71	1971-72	1972-73
Burma . . . . .	..	10,031	..	8,940	3,993
Fiji	32,045	31,409	33,631	33,948	31,606
Indonesia	53,156	62,950	51,063	7,892	..
Libya	7,700	10,506	13,575	11,243	..
Malawi	5,865	8,068	10,894	11,756	4,326
Mauritius	15,387	18,296	13,542	17,294	17,517
Oman	5,262	5,608	4,727	6,204	5,170
Papua New Guinea	16,472	18,432	21,407	19,521	19,567
Qatar	4,024	5,185	5,874	7,123	1,705
Saudi Arabia	13,625	7,177	10,570	9,530	10,017
Sri Lanka	129,731	89,194	85,018	14,911	13,523
Union of Arab Emirates	9,811	14,854	18,071	17,951	23,176
Other(b)	50,985	41,185	32,488	30,191	54,015
Total	344,063	322,895	300,860	196,504	184,615

(a) Plain white and self-raising flour, sharps and wheatmeal for baking. (b) Includes particulars of shipments made 'for orders' which could not be classified to countries.

World area and production of wheat

The figures in the following table of the world area and production of wheat by principal countries and by continents have been compiled from statistics published by the International Wheat Council. Harvests in the northern hemisphere occur in the first of the two years mentioned in each column heading, and in the southern hemisphere at the end of that year and the beginning of the next. Harvests of the northern hemisphere countries are thus combined with those of the southern hemisphere which immediately follow; e.g. in 1972-73 the Canadian harvest occurred from August to September 1972 and the Australian harvest from October 1972 to February 1973.

WHEAT: AREA, PRODUCTION, AND YIELD PER HECTARE IN VARIOUS COUNTRIES AND REGIONS(a)
(Source for countries other than Australia: International Wheat Council—World Wheat Statistics)

Country and region	Area			Production			Yield per hectare		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
	'000 hectares	'000 hectares	'000 hectares	'000 tonnes	'000 tonnes	'000 tonnes	tonnes	tonnes	tonnes
Africa	9,465	9,060	9,650	8,280	8,920	9,840	0.875	0.985	1.020
Asia—									
China, People's Republic of (b)	24,300	24,400	24,400	24,500	24,000	26,000	1.008	0.984	1.066
India	16,626	18,241	19,139	20,093	23,833	26,410	1.209	1.307	1.380
Pakistan	6,349	5,978	5,871	7,399	6,476	6,579	1.165	1.083	1.121
Turkey(c)	8,658	8,700	8,730	10,000	13,250	12,200	1.155	1.523	1.398
Total Asia(a)	66,745	68,400	70,600	72,150	76,500	84,200	1.081	1.118	1.193
Europe—									
France	3,746	3,978	3,958	12,922	15,482	18,123	3.450	3.892	4.579
Germany, Federal Republic of(c)	1,493	1,544	1,626	5,662	7,142	6,608	3.792	4.626	4.064
Italy	4,138	3,910	3,804	9,689	9,994	9,421	2.342	2.556	2.477
Spain(c)	3,756	3,655	3,587	4,062	5,455	4,562	1.082	1.493	1.272
Total Europe(a)	27,266	27,798	27,719	66,886	81,248	81,887	2.453	2.923	2.954
Canada	5,052	7,854	8,640	9,022	14,413	14,514	1.786	1.835	1.680
United States	17,630	19,293	19,135	36,783	44,029	42,046	2.086	2.282	2.197
Total North and Central America(a)	23,400	27,750	28,490	47,995	60,160	58,393	2.051	2.168	2.050
Oceania—									
Australia	6,632	7,253	7,773	8,150	8,775	6,735	1.229	1.210	0.867
Total Oceania(a)	6,728	7,369	7,872	8,474	9,195	7,083	1.260	1.248	0.900
South America—									
Argentina	3,701	4,295	4,965	4,920	5,680	7,900	1.329	1.323	1.591
Total South America(a)	6,875	7,880	8,810	8,690	9,750	10,340	1.264	1.237	1.174
U.S.S.R. (Europe and Asia)	65,200	64,035	58,500	99,664	98,760	85,800	1.529	1.542	1.467
World total(a)	205,679	212,292	211,641	312,139	344,533	337,543	1.518	1.622	1.595

(a) Totals include estimates for countries not listed. (b) Unofficial. (c) Includes spelt.

Principal wheat exporting and importing countries

The following table shows world exports of wheat and wheat flour (in terms of wheat) by the major wheat exporting countries, according to continents and countries of primary destination, based on statistics recently published by the International Wheat Council. While Australia's production of wheat has averaged about three per cent of the world's total during recent years, its exports account for a much higher proportion of the total quantities shipped. For the three years ended 1972-73 Australia's share of the world wheat exports has averaged 14 per cent.

**WORLD EXPORTS OF WHEAT, AND WHEAT FLOUR IN TERMS OF WHEAT
1968-69 TO 1972-73**

*(Source: International Wheat Council—Review of the World Wheat Situation)
(‘000 tonnes)*

Year and country of primary destination	Exporting country							Total
	Argentina	Australia	Canada	E.E.C.	U.S.A.	U.S.S.R.	Other	
1972-73p—								
Africa—								
Arab Republic of Egypt . . . . .	..	729	30	1,643	283	..	363	3,048
Other	33	112	506	1,369	1,441	..	589	4,050
<i>Total Africa</i>	<i>33</i>	<i>841</i>	<i>536</i>	<i>3,012</i>	<i>1,724</i>	<i>..</i>	<i>952</i>	<i>7,098</i>
Asia(a)—								
China, People's Republic of . . . . .	..	324	4,374	..	591	..	..	5,289
Iran . . . . .	..	..	..	..	503	..	100	603
Indonesia . . . . .	..	75	49	76	495	..	4	699
Japan	80	717	1,364	..	3,377	..	24	5,562
Korea, Republic of . . . . .	..	..	..	12	1,621	..	..	1,633
Kuwait . . . . .	..	106	..	..	..	..	..	106
Lebanon . . . . .	..	18	101	50	85	..	43	297
Malaysia . . . . .	..	346	19	1	12	..	4	382
Saudi Arabia . . . . .	..	56	3	90	149	..	..	298
Singapore . . . . .	..	178	20	..	13	..	..	211
Other	1,000	651	1,229	1,149	4,379	300	144	8,852
<i>Total Asia</i>	<i>1,080</i>	<i>2,471</i>	<i>7,159</i>	<i>1,378</i>	<i>11,225</i>	<i>300</i>	<i>319</i>	<i>23,932</i>
Europe(a)—								
Norway . . . . .	..	32	..	29	93	..	128	282
United Kingdom . . . . .	..	468	1,272	716	542	..	168	3,166
Germany (East) . . . . .	..	135	..	..	178	400	230	943
Other	374	34	1,205	370	3,592	403	319	6,297
<i>Total Europe</i>	<i>374</i>	<i>669</i>	<i>2,477</i>	<i>1,115</i>	<i>4,405</i>	<i>803</i>	<i>845</i>	<i>10,688</i>
North and Central America . . . . .	..	1	740	111	1,285	200	49	2,386
Oceania . . . . .	..	97	..	37	4	..	..	138
South America—								
Chile	402	492	..	5	17	..	13	929
Peru . . . . .	..	83	183	3	563	..	..	832
Other	1,621	..	373	4	2,492	..	110	4,600
<i>Total South America</i>	<i>2,023</i>	<i>575</i>	<i>556</i>	<i>12</i>	<i>3,072</i>	<i>..</i>	<i>123</i>	<i>6,361</i>
U.S.S.R. . . . .	..	908	4,168	704	9,468	..	651	15,899
All other . . . . .	..	..	12	156	809	..	10	987
Total 1972-73	3,510	5,562	15,648	6,525	31,992	1,303	2,949	67,489
1968-69(b)	2,800	5,400	8,700	5,000	14,700	5,400	3,000	45,000
1969-70	2,100	7,300	9,000	7,200	16,500	5,900	2,300	50,300
1970-71	1,700	9,500	11,600	3,100	19,800	7,100	1,000	53,700
1971-72	1,323	8,660	13,716	4,656	16,907	5,478	1,543	52,283

(a) Excludes U.S.S.R., details of which are shown separately. (b) Years prior to 1968-69 include European Economic Community intratrade.

The above particulars are based on customs clearances of the exporting countries, and relate to years ended 30 June. There are small differences between Australian exports as shown and those on pages 761-2 due in part to the use by the International Wheat Council of a slightly different factor to convert flour to wheat equivalent.

Oats

Oats is traditionally a cereal of moist temperate regions. However improved varieties and management practices have enabled oats to be grown over a wide range of soil and climatic conditions. It has excellent feed value and produces a greater bulk of growth than other winter cereals. It needs less cultivation than other winter cereals and responds to superphosphate and nitrogen in districts where it is usual to apply fertilisers. Oats has a variety of uses—as a pasture plant when rough sown into stubble or heavy clover pastures, as a fodder crop when mown and baled or cut for chaff, or as a grain when stripped (the stubble then being grazed off). The grain is sold through voluntary pools in Victoria, South Australia and Western Australia. In 1971 State statutory marketing boards were set up in New South Wales and Victoria after a poll of growers. The Victorian board was disbanded

in 1972 and marketing reverted to a voluntary pooling arrangement. In the same year legislation to constitute a board was passed in South Australia. It has not yet commenced to operate. In Western Australia the grain is sold through a voluntary pool.

Oats area, production and yield per hectare

Oats is usually next in importance to wheat among the grain crops cultivated in Australia. However, while wheat grown for grain in 1972-73 accounted for 66 per cent of the area of all crops, oats grown for grain represented only 9 per cent.

OATS FOR GRAIN: AREA, PRODUCTION AND YIELD PER HECTARE

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>Aust.</i>
AREA ('000 HECTARES)								
1968-69	479	401	22	209	442	14	..	1,567
1969-70	366	358	30	150	461	13	..	1,374
1970-71	405	399	24	195	520	9	..	1,553
1971-72	261	329	21	169	454	6	..	1,241
1972-73	285	255	10	142	297	6	..	995

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>Aust.</i>
PRODUCTION ('000 TONNES)								
1968-69	498	548	20	216	416	11	..	1,710
1969-70	349	470	17	121	281	8	..	1,247
1970-71	456	467	8	153	520	9	..	1,613
1971-72	221	449	18	166	414	7	..	1,275
1972-73	196	238	8	74	212	7	..	736

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>Aust.</i>
YIELD PER HECTARE (TONNES)								
1968-69	1.039	1.367	0.912	1.034	0.942	0.831	1.002	1.091
1969-70	0.955	1.315	0.566	0.804	0.608	0.920	1.260	0.907
1970-71	1.125	1.169	0.345	0.783	1.001	0.934	1.064	1.038
1971-72	0.847	1.364	0.857	0.982	0.912	1.097	0.851	1.028
1972-73	0.689	0.936	0.789	0.525	0.715	1.103	0.516	0.740

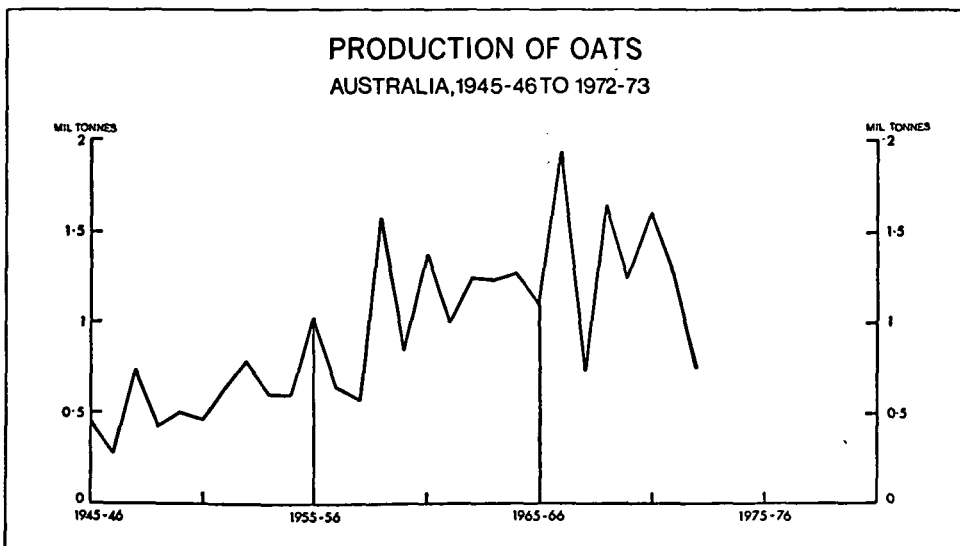


PLATE 46

A map showing the distribution of areas growing oats for grain throughout Australia in 1962-63 appears on page 1015 of Year Book No. 50. The area sown to oats from 1900-01 to 1970-71 is shown in Year Book No. 58, Plate 39, page 746. The production of oats from 1945-46 to 1972-73 is shown in plate 46, page 765.

Production of oats in 1972-73, 736,000 tonnes, was 62 per cent below the record production in 1966-67. Yield per hectare was 0.740 tonnes, which is below the record yield per hectare of 1.128 tonnes in 1966-67.

Exports of Oats

OATS: EXPORTS, AUSTRALIA

	1968-69	1969-70	1970-71	1971-72	1972-73
Quantity tonne	333,361	219,283	555,917	328,979	114,534
Value \$'000 f.o.b.	13,042	7,559	23,827	12,425	5,016

In 1972-73 the principal countries of destination were Japan (90,975 tonnes), Italy (15,156 tonnes), Malaysia (2,700 tonnes) and the United Kingdom (1,540 tonnes).

World production of oats

The world production of oats for the 1973-74 season, according to estimates by the Bureau of Agricultural Economics, Canberra, amounted to 54 million tonnes. This represents a 5 per cent increase in production over the previous year. The main producers are the Union of Soviet Socialist Republics, the United States, Canada, West Germany and Poland, with Australia producing about 2.5 per cent of the world total. On occasions in recent years Australia has been the world's largest exporter.

Barley

This cereal contains two main groups of varieties, 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes. Barley is grown principally on pasture land worked up early in the year of sowing. In this way it forms an important phase in the rotation of crops. Like oats, it may also be sown for fodder production or for grain. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may thus provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock or sold for malting.

Crops sown for malting purposes require a combination of light textured soil of moderate fertility, reliable rainfall, and mild weather during ripening. The main barley-growing areas in Australia are situated in South Australia (South Adelaide Plains, Eyre and Yorke Peninsulas), but considerable quantities are grown also in New South Wales, Victoria, Queensland and Western Australia. There are State statutory marketing boards operating in all mainland States.

Barley Boards

The bulk of the barley crop in the various States is acquired and marketed by grower-controlled boards. Pooled returns from sales are distributed to growers at standard rates for the individual grades and varieties delivered. The Victorian and South Australian crops are marketed by the Australian Barley Board (a joint board established by the two State Governments), and the Queensland and Western Australian Barley Boards handle the crops of their respective States. A marketing board was established in New South Wales in 1971 after a poll of growers. Particulars of the proportion of barley production which was received by the Australian Barley Board (for Victoria and South Australia), together with details of quantity sold, advances and total payments to growers, are presented below.

**AUSTRALIAN BARLEY BOARD: BARLEY RECEIVED, SOLD, ETC.
1968-69 TO 1972-73**

<i>Pool</i>	<i>Quantity received</i>	<i>Quantity sold</i>	<i>Total advances per tonne(a)</i>	<i>Net payments to growers</i>
	tonnes	tonnes	\$	\$'000
No. 30 (1968-69 Crop)	618,734	617,328	42.68	21,765
„ 31 (1969-70 „)	712,837	711,749	37.43	21,191
„ 32 (1970-71 „)	827,829	826,083	48.54	34,551
„ 33 (1971-72 „)	1,135,065	1,132,104	42.49	38,302
„ 34 (1972-73 „)	441,949	442,001	56.01	21,949

(a) 2-row No. 1 Grade (bulk) less freight.

Barley area, production and yield per hectare

Since the imposition of wheat quotas for the 1969-70 season, the area of barley sown for grain has increased substantially. The area sown in 1972-73, was 2,140,000 hectares, which was 16 per cent less than the previous record area of 2,535,000 hectares in 1971-72. The production of barley for grain in 1972-73, 1,727,000 tonnes, was 44 per cent less than the previous record production of 3,066,000 tonnes in 1971-72. The area, production and yield per hectare of barley for grain in the several States for the years 1968-69 to 1972-73 are shown in the following table. Separate details for 2-row and 6-row varieties are shown for all States for 1972-73.

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER HECTARE

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>Aust.</i>
AREA ('000 HECTARES)								
1968-69	197	166	173	572	224	11	..	1,341
1969-70	219	197	169	560	364	12	..	1,521
1970-71	301	269	91	693	632	13	..	2,000
1971-72	373	296	159	784	911	13	..	2,535
1972-73—								
2-row	229	269	71	676	528	11	..	1,785
6-row	107	9	7	16	216	1	..	355
Total	336	277	78	692	744	13	..	2,140

BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER HECTARE—*continued*

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
PRODUCTION ('000 TONNES)								
1968-69 . . .	254	202	292	670	208	20	..	1,646
1969-70 . . .	280	258	172	691	273	25	..	1,699
1970-71 . . .	429	318	61	742	769	30	..	2,351
1971-72 . . .	346	395	249	1,047	1,000	28	..	3,065
1972-73—								
2-row . . .	168	207	74	498	478	17	..	1,441
6-row . . .	98	7	6	11	163	2	..	286
Total . . .	266	214	80	509	640	19	..	1,727
YIELD PER HECTARE (TONNES)								
1968-69 . . .	1.292	1.217	1.689	1.173	0.931	1.890	..	1.228
1969-70 . . .	1.276	1.310	1.020	1.234	0.751	2.068	..	1.117
1970-71 . . .	1.426	1.183	0.672	1.071	1.217	2.310	..	1.175
1971-72 . . .	0.927	1.336	1.568	1.336	1.098	2.202	..	1.209
1972-73—								
2-row . . .	0.736	0.770	1.028	0.736	0.904	1.457	..	0.807
6-row . . .	0.911	0.798	0.925	0.711	0.753	1.500	..	0.806
Total . . .	0.792	0.771	1.026	0.735	0.861	1.462	..	0.807

For Australia, 83 per cent of the area of barley for grain in 1972-73 was sown with 2-row barley. The proportion, however, varied considerably in the several States. The utilisation of barley during the season ended November 1973 was as follows: exports, 676,000 tonnes; pearl barley, 1,625 tonnes; seed 126,000 tonnes.

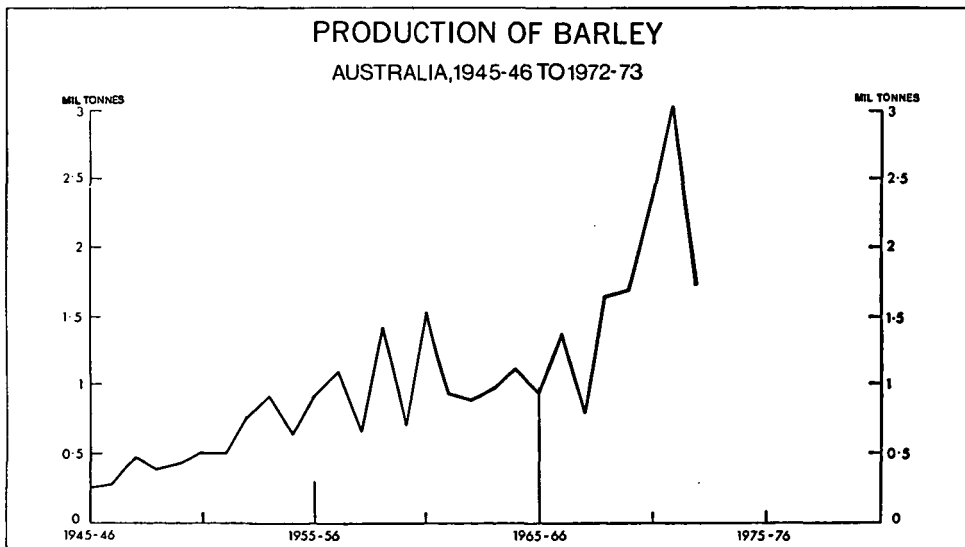


PLATE 47

The production of barley in Australia since 1945-46 is shown in plate 47, previous page and a map showing the distribution of barley growing areas throughout Australia in 1962-63 appears on page 1014 of Year Book No. 50. The area sown to barley from 1900-01 to 1970-71 is shown in Year Book No. 58, plate 39, page 746.

Exports of barley

Western Australia is the principal exporting State, and Taiwan, Japan, the United Kingdom, the Republic of Korea and the Federal Republic of Germany were the principal countries to which barley was shipped in 1972-73. Particulars of exports of Australian-produced barley for the years 1968-69 to 1972-73 are shown in the following table.

BARLEY: EXPORTS, AUSTRALIA

	1968-69	1969-70	1970-71	1971-72	1972-73
Quantity tonne	450,669	632,304	1,122,970	1,816,765	804,122
Value \$'000 f.o.b.	18,246	22,766	50,820	74,344	38,512

In addition to exports of barley grain, there are also exports of Australian pearl and Scotch barley, the total for 1972-73 amounting to 26,000 kgs, valued at \$7,000, the main country of consignment being Indonesia.

Barley malt

Details of the recorded usage of barley and the production of barley malt in the years 1968-69 to 1972-73 are given in the following table.

BARLEY MALT: GRAIN USED AND MALT PRODUCED, AUSTRALIA

	1968-69	1969-70	1970-71	1971-72	1972-73
Barley used '000 kg	319,011	312,094	n.a.	n.a.	n.a.
Malt produced '000 kg	251,580	260,815	311,073	366,502	334,914

Since 1952-53 the production of malt in Australia has been sufficient to meet local requirements and to provide a margin for export. Exports of Australian produce amounting to 170,342 tonnes (value \$19,193,000) and 154,640 tonnes (value \$17,057,000) were recorded in 1971-72 and 1972-73 respectively.

World production of barley

In comparison with the barley production of other countries that of Australia is extremely small. The main producers in 1972 were the Union of Soviet Socialist Republics, Canada, the United States of America, France and the United Kingdom. The People's Republic of China is also normally a major producer, but recent details are not available. Australian production in 1973-74 was approximately 2 per cent of the world total.

According to preliminary estimates made by the Bureau of Agricultural Economics, Canberra, world production of barley in the year 1973 amounted to 155 million tonnes. This compared with the production of 136 million tonnes in the previous year.

Sorghum

The sorghums are summer growing crops which are used in three ways: grain sorghum for grain; sweet or fodder sorghum, sudan grass and more recently columbus grass for silage, green feed and grazing; and brook millet for brooms and brushware.

The growing of grain sorghum on an extensive scale did not attain a position of prominence until the last two decades. Operations are highly mechanised and rapid increases in production have resulted in a substantial increase in exports. The grain is used primarily as stockfeed and is an important source for supplementing other coarse grains for this purpose.

The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghums. In Queensland grain sorghum production is concentrated in the Burnett, Dawson-Callide areas and in the Central Highlands. In New South Wales the north-western slopes and the Murrumbidgee Irrigation Areas are the main areas. The crop is also being developed in north Queensland, in the Northern Territory, and in Western Australia.

In Queensland orderly marketing of the crop is arranged through the Central Queensland Grain Sorghum Marketing Board and the Grain Sorghum Export Committee of the Queensland Grain-growers Association. A State statutory marketing board commenced operations in New South Wales with the marketing of the 1972 crop.

GRAIN SORGHUM: AREA, PRODUCTION AND YIELD PER HECTARE

Year	Area			Production(a)			Yield per hectare(a)		
	N.S.W.	Qld	Aust.(b)	N.S.W.	Qld	Aust.(b)	N.S.W.	Qld	Aust.(b)
	hectares	hectares	hectares	'000 tonnes	'000 tonnes	'000 tonnes	tonnes	tonnes	tonnes
1968-69	55,420	150,233	209,694	107	185	294	1,929	1,230	1,404
1969-70	99,221	258,015	358,746	164	381	547	1,649	1,478	1,526
1970-71	180,365	368,717	552,184	487	806	1,297	2,697	2,186	2,350
1971-72	207,793	423,234	638,392	371	833	1,228	1,786	1,969	1,924
1972-73	269,002	414,133	697,162	372	622	1,018	1,382	1,502	1,460

(a) Production in New South Wales and Queensland (for years prior to 1968-69) harvested from crop sown in previous year. (b) Includes small areas sown and quantities produced in other States and Territories. Excludes Northern Territory for 1968-69 and 1969-70.

Maize

Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. For grain, growing is almost entirely confined to the south-east regions and Atherton Tablelands of Queensland and the north coast and northern tablelands of New South Wales. On the Atherton Tablelands in Queensland, and generally in New South Wales and Victoria, the cereal provides a stock feed for dairy cattle, fat stock, poultry and pigs. In times of drought it is used also as a sheep feed. In all States except South Australia, however, this crop is grown to some extent for green feed and silage, particularly in connection with the dairying industry. There is practically no difference between grain and fodder varieties.

There has been a continuing increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per hectare considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialised industry of growing hybrid strains for seed.

A State statutory board controls marketing in the Atherton Tablelands area of Queensland. Elsewhere, marketing is in the hands of private merchants,

Maize area, production and yield per hectare

MAIZE FOR GRAIN: AREA, PRODUCTION AND YIELD PER HECTARE

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA (HECTARES)									
1968-69	22,049	470	43,981	..	16	..	..	..	66,516
1969-70	32,691	463	46,186	..	265	..	..	..	79,605
1970-71	33,313	535	51,725	..	62	..	..	..	85,635
1971-72	33,243	375	44,546	..	29	..	..	..	78,193
1972-73	23,850	496	34,913	..	(a)	..	(a)	..	(b)59,259
PRODUCTION ('000 TONNES)(c)									
1968-69	78	2	69	..	..	..	..	..	149
1969-70	102	2	88	..	..	..	..	..	192
1970-71	106	2	104	..	..	..	..	..	212
1971-72	114	2	97	..	..	..	..	..	214
1972-73	67	2	70	..	(a)	..	(a)	..	(b)139
YIELD PER HECTARE (TONNES)(c)									
1968-69	3.551	3.900	1.567	..	1.063	..	..	..	2.241
1969-70	3.112	3.946	1.903	..	0.623	..	..	..	2.407
1970-71	3.195	2.950	2.002	..	0.645	..	..	..	2.471
1971-72	3.443	5.117	2.188	..	3.828	..	..	..	2.736
1972-73	2.822	3.036	2.005	..	(a)	..	(a)	..	2.343

(a) Not available for publication. (b) Incomplete; see footnotes to individual States. (c) Production in New South Wales and Queensland (for years prior to 1968-69) harvested from crop sown in previous year.

The average yield for Australia for the five-year period ended 1972-73 was 2.240 tonnes per hectare.

Exports of maize

MAIZE: EXPORTS, AUSTRALIA

	1968-69	1969-70	1970-71	1971-72	1972-73
Quantity tonne	181	682	22,375	38,469	9,191
Value \$'000 f.o.b.	15	51	1,203	2,283	493

World production of maize

According to figures issued by the Bureau of Agricultural Economics, Canberra, world production of maize in the year 1973-74 season amounted to an estimated 312 million tonnes. This compared with production in the previous year of 284 million tonnes.

The United States of America is the most important maize-producing country in the world, and accounted for 46 per cent (144 million tonnes) of total world production in 1973-74.

Rice

The principal rice-growing areas of the world are confined almost entirely to Asia, although limited quantities are grown in other countries. In Australia rice was first cultivated at the Yanco Experimental Farm in New South Wales, but it was not grown commercially until 1924-25, when 309 tonnes were produced from 62 hectares. Favoured by high average yields and protected by tariff, rice culture made rapid progress in the Murrumbidgee Irrigation Areas until local requirements were met and a surplus became available for export. The area sown in the Murrumbidgee Irrigation Areas is controlled, as the quantity of water available is limited.

Apart from small experimental areas in Western Australia and the Northern Territory, rice-growing in Australia is practically confined to the Murray and Murrumbidgee Irrigation Areas in New South Wales and recently, the Burdekin area of Queensland. In 1972-73, the largest purchasers of Australian rice were Papua New Guinea, Hong Kong and Fiji. Details relating to area, production, and Australian-produced exports for recent years are shown in the following table.

RICE: AREA, PRODUCTION AND EXPORTS, AUSTRALIA^(a)

Year	No. of holdings growing rice ^(b)	Area	Production (paddy rice)		Imports	Exports
			Quantity	Average yield (paddy) per hectare		
		hectares	'000 tonnes	tonnes	tonnes	tonnes
1968-69 . . .	1,464	33,697	256	7.587	1,463	111,222
1969-70 . . .	1,804	40,163	247	6.143	1,541	128,766
1970-71 . . .	1,880	38,054	299	7.859	438	102,428
1971-72 . . .	1,541	40,494	248	6.134	384	180,555
1972-73 . . .	1,437	45,150	309	6.834	414	157,611

(a) For some years particulars of area and production for Western Australia and the Northern Territory are not available for publication, and are excluded. (b) Approximately 8 hectares and over; recorded as 20 acres and over.

Fodder crops

Hay

As well as crops grown specifically for grain, considerable areas of Australia are devoted to fodder crops. These crops are utilised either for grazing (as green feed), or conserved as hay, ensilage, etc.

This development of fodder conservation as a means of supplementing pasture and natural sources of stockfeed is the result of the comparatively unreliable nature of rainfall in Australian agricultural and pastoral areas.

HAY: AREA, PRODUCTION AND YIELD PER HECTARE

Season	N.S.W.	Vic.	Qld	S.A	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA ('000 HECTARES)									
1968-69	116	132	15	98	60	7	..	1	428
1969-70	72	102	32	73	144	4	..	..	428
1970-71	47	80	17	84	116	4	1	..	349
1971-72	65	88	13	78	95	2	..	..	341
1972-73	74	139	13	89	133	4	..	..	453
PRODUCTION ('000 TONNES)									
1968-69	448	608	53	377	210	31	..	2	1,728
1969-70	292	503	79	275	344	21	..	1	1,514
1970-71	185	355	26	284	401	21	..	1	1,274
1971-72	193	363	48	296	332	13	..	..	1,247
1972-73	175	442	34	203	351	17	1	..	1,224
YIELD PER HECTARE (TONNES)									
1968-69	3.871	4.599	3.511	3.861	3.469	4.795	2.880	3.226	4.037
1969-70	4.028	4.928	2.508	3.748	2.384	5.020	..	3.678	3.536
1970-71	3.935	4.443	1.576	3.367	3.456	5.019	0.600	3.931	3.650
1971-72	2.978	4.108	3.833	3.813	3.507	5.240	2.727	1.753	3.655
1972-73	2.368	3.169	2.644	2.277	2.646	3.923	2.735	1.474	2.701

HAY: AREA OF VARIOUS TYPES GROWN 1972-73
(Hectares)

State or Territory	Oats	Wheat	Other	Total
New South Wales	33,794	37,310	2,957	74,061
Victoria	105,956	28,053	5,344	139,353
Queensland	3,545	4,459	4,948	12,952
South Australia	52,636	20,074	16,463	89,173
Western Australia	92,313	30,478	9,948	132,739
Tasmania	3,030	991	429	4,450
Northern Territory	..	..	321	321
Australian Capital Territory	209	(a)	2	211
Australia	291,483	(b) 121,365	40,412	453,260

(a) Not available separately, included in 'Other'.

(b) Incomplete; see footnotes to individual States.

Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for overseas trade, and consequently does not figure largely among Australian exports. During 1972-73 exports amounting to 11,715 tonnes, valued at \$544,000, were made, principally to Kuwait, Iran, Singapore and New Caledonia. Imports of hay are not recorded separately, but are considered to be negligible.

GREEN FEED OR SILAGE: AREA
(^{'000} hectares)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968-69	440	104	507	114	118	49	..	..	1,332
1969-70	513	98	608	120	152	43	..	..	1,535
1970-71	495	105	487	132	144	32	..	..	1,396
1971-72	325	57	364	85	144	22	1	..	998
1972-73	402	73	480	88	124	34	1	1	1,204

SILAGE: PRODUCTION
(Tonnes)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Production during—									
1968-69 season	211,999	342,775	18,513	93,400	46,199	72,352	(a)	100	(b) 785,338
1969-70	433,589	294,058	58,317	41,840	39,168	53,291	(a)	1,676	(b) 921,939
1970-71	383,289	215,263	126,990	46,549	69,907	47,343	(a)	67	(b) 889,408
1971-72	240,521	246,118	78,202	58,651	76,395	64,377	1,270	1,301	766,835
1972-73	180,648	148,494	51,357	22,878	50,567	25,017	5,269	211	484,441

(a) Not collected. (b) Incomplete; see footnotes to individual States.

Soybeans

The soybean is cultivated widely throughout the world in temperate zones where hot damp summers provide adequate growing conditions. Although large quantities of beans are directly consumed in countries such as Japan, China and Indonesia, the greater part of world output is crushed for meal and oil. Major soybean producing countries are the United States of America, Brazil and People's Republic of China.

The greater part of Australian production takes place in the Darling Downs, Burnett and Lockyer districts of Queensland and the Moree and Gunnedah districts of New South Wales. Production has risen rapidly in recent years to reach 37,937 tonnes in 1972-73.

Lupins

The lupin is an annual legume with a growing season closely following that of winter cereals. It prefers well drained soil but is otherwise fairly adaptable. In the past a small amount has been grown for grazing but a recent rapid expansion has followed the development in Australia of lupins with alkaloid-free seed. The seed has a high protein content and is finding use as a substitute for soya protein in human and animal food preparations. The main producing area is in the south-west of Western Australia where production reached 15,126 tonnes in 1972-73.

Sugar cane

The growing of sugar cane is restricted to those coastal areas in Queensland and northern New South Wales which have suitable climatic and soil conditions.

The Bureau of Sugar Experiment Stations in Queensland and C.S.R. Limited render useful service to the sugar industry by advocating and demonstrating better methods of cultivation and the more scientific use of fertilisers, lime, etc., and by producing and distributing improved varieties of cane. In common with these two organisations, Sugar Research Ltd, of Mackay, undertakes technological research in raw sugar milling practices.

Bulk handling of sugar

Bulk handling and mechanised loading and unloading of raw sugar is now in operation throughout the Australian sugar industry. The comparatively small New South Wales sugar industry was converted to bulk handling in 1954. In Queensland, terminals for the bulk loading of sugar were opened at Mackay in 1957, at Lucinda and Bundaberg in 1958, at Townsville in 1959, at Mourilyan in 1960, and at Cairns in 1964. Extensions at Bundaberg and Mourilyan, second sheds at Bundaberg, Townsville, Lucinda and Cairns and also two extra sheds at Mackay have been opened subsequently to give a total bulk storage capacity of 1,471,000 tonnes. Bulk receiving facilities are in operation at all Australian refineries.

Mechanisation

In Queensland the proportion of the crop mechanically harvested had risen from 2.7 per cent in 1960 to virtually 100 per cent by 1973. Mechanical harvesting is being used on an increasing scale in New South Wales and it is expected that about two thirds of the 1974 season crop will be harvested in this way.

Area of sugar cane

A brief outline of the development of the industry was included in earlier issues of the Year Book (*see* No. 38, page 985). The area of sugar cane in Australia for recent seasons is shown in the following table. The areas shown in the table exclude a very small area cut for green feed prior to 1971-72. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and 'stand-over' cane as well as a small quantity required for plants.

SUGAR CANE: AREA(a)
(Hectares)

Year	New South Wales			Queensland			Australia			Total
	Area crushed	Area of standover and newly-planted cane	Area cut for plants	Area crushed	Area of standover and newly-planted cane	Area cut for plants	Area crushed	Area of standover and newly-planted cane	Area cut for plants	
1968-69	8,974	7,522	242	221,082	34,090	5,388	230,056	41,612	5,630	277,298
1969-70	8,028	7,887	197	204,762	48,860	5,588	212,790	56,747	5,785	275,322
1970-71	9,010	8,045	191	211,511	42,304	5,041	220,521	50,349	5,232	276,102
1971-72	9,330	7,418	268	224,407	31,369	4,923	233,737	38,787	5,191	277,715
1972-73	9,361	6,497	192	232,338	30,023	4,853	241,699	36,520	5,045	283,264

(a) Excludes areas cut for green fodder prior to 1971-72.

Production of cane and sugar

The production of sugar cane in 1972-73 was 18,928,000 tonnes, which was 463,000 tonnes below the previous record production in 1971-72. The production of raw sugar from 1945-46 is shown in plate 48, following.

SUGAR CANE: PRODUCTION OF CANE AND RAW SUGAR
(Tonnes)

Year	New South Wales		Queensland		Australia	
	Cane	Sugar(a)	Cane	Sugar(a)	Cane	Sugar(a)
1968-69 . . .	1,013,828	122,313	17,694,476	2,646,118	18,708,304	2,768,431
1969-70 . . .	848,637	99,289	14,935,717	2,114,437	15,784,354	2,213,726
1970-71 . . .	1,178,683	149,234	16,466,134	2,375,543	17,644,817	2,524,777
1971-72 . . .	980,196	123,813	18,410,310	2,669,622	19,390,506	2,793,435
1972-73 . . .	841,106	121,140	18,087,205	2,714,062	18,928,311	2,835,202

(a) Raw sugar at 94 net titre.

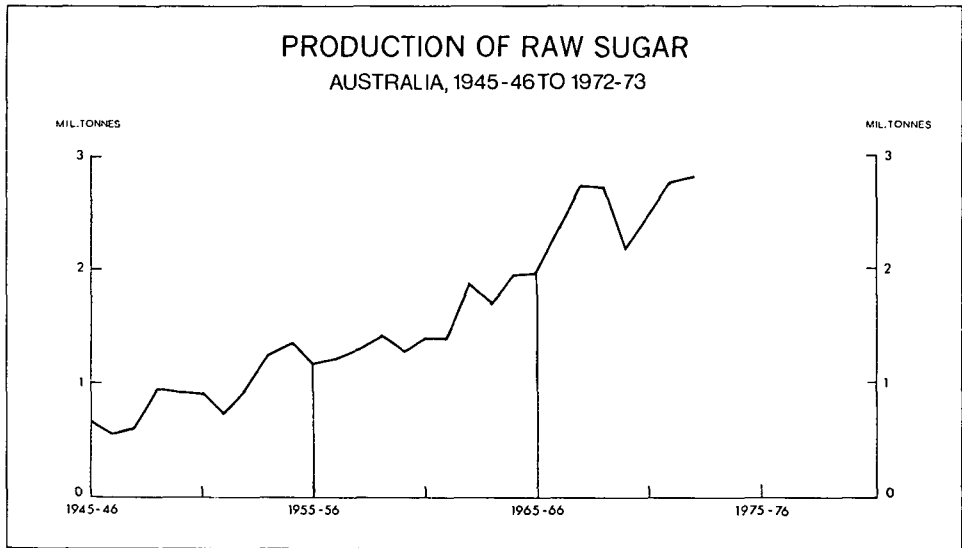


PLATE 48

Climatic conditions in New South Wales are such that the crop matures in from twenty to twenty-four months, whereas in Queensland a period of from twelve to sixteen months is sufficient. The average yields of cane and sugar per hectare for recent years are shown below. Allowance should be made in interpreting these figures for the disparity in maturing periods noted above.

SUGAR CANE AND SUGAR: YIELD PER HECTARE
(Tonnes)

Year	New South Wales			Queensland			Australia		
	Cane per hectare crushed	Sugar per hectare crushed	Cane to each tonne of sugar	Cane per hectare crushed	Sugar per hectare crushed	Cane to each tonne of sugar	Cane per hectare crushed	Sugar per hectare crushed	Cane to each tonne of sugar
1968-69 . . .	112.97	13.63	8.29	80.04	11.97	6.69	81.32	12.03	6.76
1969-70 . . .	105.71	12.37	8.55	72.94	10.33	7.06	74.18	10.40	7.13
1970-71 . . .	130.82	16.56	7.90	77.85	11.23	6.93	80.01	11.45	6.99
1971-72 . . .	105.06	13.27	7.92	82.04	11.90	6.89	82.96	11.95	6.94
1972-73 . . .	89.85	12.94	6.94	77.85	11.68	6.67	78.31	11.73	6.68

Production and utilisation of sugar

Details of the production and utilisation of sugar are shown below. Consumption is shown in terms of refined sugar, including that consumed in manufactured products.

SUGAR: PRODUCTION AND UTILISATION, AUSTRALIA

Year	Changes in stocks(a)	Production (raw)(b)	Exports(c)	Miscellaneous uses(d)	Consumption in Australia(e)	
					Total	Per head
	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	kg
1968-69	n.a.	2,604.3	2,062.2	n.a.	594.1	48.8
1969-70	n.a.	2,201.9	1,386.6	n.a.	618.9	49.7
1970-71	n.a.	2,451.7	1,596.8	n.a.	636.3	50.8
1971-72	n.a.	2,579.3	2,033.0	n.a.	645.6	50.2
1972-73	n.a.	2,729.8	2,134.7	n.a.	664.4	50.8

(a) Includes allowance for estimated sugar content of imported foodstuffs. (b) Year ended June; *tel quel* basis. Not comparable with production figures shown in production table as those relate to year ended March on a 94 net titre basis. (c) Raw and refined, including ships' stores and sugar in exported foodstuffs. (d) Includes refining losses and quantities used in golden syrup and treacle. (e) Includes sugar content of manufactured products consumed.

The quantity of sugar (commodity codes 102.12, 13, 38, 40) recorded as used in factories amounted to 365,756 tonnes in 1968-69, 379,373 tonnes in 1969-70, 412,414 tonnes in 1971-72 and 410,433 tonnes in 1972-73. Statistics for 1970-71 are not available. Particulars of sugar used in establishments not classified as factories are not available and consequently these quantities are deficient to that extent. In 1972-73 the reported consumption by factories engaged in the production of fruit and vegetable products (ASIC 2131, 2132) amounted to 65,235 tonnes by those producing milk, confectionery and cocoa products (ASIC 212, 2181) to 96,816 tonnes, by beer, wine and brandy producers (ASIC 2192, 2194) to 44,162 tonnes and by factories producing soft drinks, cordials and syrups (ASIC 2191) to 119,183 tonnes. Of the remainder 34,661 tonnes was used in the production of biscuits, cakes and pastries (ASIC 2162, 2163), 31,740 tonnes in the production of cereal foods and the preparation of flour and baking mixes (ASIC 2111, 2153, 2184, 2723) and 18,636 tonnes used in various other industries.

Sugar prices and returns

The current prices of sugar in Australia and details of net returns for raw sugar are shown in the following tables.

SUGAR: PRICES IN AUSTRALIA

Year	Raw sugar, 94 net titre			Refined sugar		
	Average return per tonne received by millers and growers for—			Date of determination	Wholesale price to retailer per tonne	Retail price capital cities per kg
	Home consumption	Exports(a)	Whole crop(a)			
	\$	\$	\$		\$	cents
1969-70(b)	140.84	79.55	98.18	19.6.67	203.46	23
1970-71(c)	138.08	86.44	100.72			
1971-72(c)	136.51	99.35	108.61			
1972-73(c)	134.93	112.26	117.96			
1973-74(c)	132.40	129.55	130.38			

(a) Includes 'excess' sugar. (b) Excludes repayable Australian Government arranged loan. (c) Includes repayment of Australian Government loan.

RAW SUGAR(a): NET RETURNS, AUSTRALIA

(Source: The Queensland Sugar Board)

Year	Proportion exported	Net value of exports per tonne	Average price per tonne for whole crop	Estimated value of crop
	per cent	\$	\$	\$'000
1968-69	76.23	62.04	80.80	223,638
1969-70	69.61	79.55	98.18	217,279
1970-71	72.36	86.44	100.72	254,191
1971-72	75.09	99.35	108.61	303,290
1972-73	74.87	112.26	117.96	332,184

(a) 94 net titre.

The estimated values stated, comprise the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges. They include concessions to the fruit industry and other rebates, which in 1973-74 amounted to \$976,000 and also payment of the first instalment of the repayable Australian Government arranged loan. The value thus obtained represents the net market value of all raw sugar sold, which, less the rebates, is divided between the growers and millers in the approximate proportions of two-thirds and one-third respectively.

Exports of sugar

RAW AND REFINED SUGAR: EXPORTS, AUSTRALIA

	1968-69	1969-70	1970-71	1971-72	1972-73
Quantity tonnes	2,061,739	1,386,200	1,571,250	2,007,983	2,084,430
Value \$'000 f.o.b.	122,214	116,120	149,647	210,593	249,759

Tobacco

Tobacco is a summer-growing annual which requires a temperate to tropical climate, adequate soil moisture and a frost-free period of approximately five months. In Australia almost all tobacco is grown under irrigation. Because of specialised requirements, production is limited to areas with suitable soils and climate. The main centres of production are the Mareeba-Dimbulah districts of north Queensland and Myrtleford in north-eastern Victoria. Other areas where tobacco is grown include Bundaberg, Beerwah and Texas (Queensland), Ashford (New South Wales) and Wangaratta (Victoria). All tobacco grown in Australia is of the flue-cured type except for small quantities of burley tobacco produced mainly in Victoria.

Tobacco area and production

The area planted to tobacco in 1972-73 was 23.9 per cent below the record area established in 1962-63. Production at 15,421,000 kg was 11.1 per cent below the previous record established in 1970-71.

TOBACCO: AREA AND PRODUCTION

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA (HECTARES)									
1968-69	886	3,936	5,600	..	..	..	..	..	10,422
1969-70	1,108	4,458	5,224	..	..	..	..	..	10,790
1970-71	1,231	4,242	5,427	..	..	..	..	..	10,900
1971-72	1,273	3,844	4,928	..	..	..	..	..	10,045
1972-73	898	4,068	4,632	..	..	..	..	..	9,598
PRODUCTION OF DRIED LEAF ('000 kg)									
1968-69	1,125	5,477	8,853	..	..	..	..	..	15,455
1969-70	1,389	7,038	8,607	..	..	..	..	..	17,034
1970-71	1,270	6,902	8,956	..	..	..	..	..	17,128
1971-72	1,855	5,765	8,395	..	..	..	..	..	16,015
1972-73	1,449	5,769	8,203	..	..	..	..	..	15,421

Imports and exports of tobacco

Imports of tobacco and tobacco manufactures into Australia during 1972-73 were valued at \$27.6 million. This included 10.3 million kg of unmanufactured tobacco valued at \$16.7 million. Exports of tobacco and tobacco manufactures during 1972-73 were valued at \$3,673,000, including Australian produce, \$2,820,000.

Cotton

This annual shrub requires a hot climate and inter-row weed control. Lint (long fibres) is extracted from the seed cotton in the ginneries and is used for yarn. The residue, consisting of linters (short fibres), kernels and hulls (outer seed coat), is treated in oil mills. Linters are used in the manufacture of felts and other materials, where fibre length is of little importance. The kernels when crushed produce an oil which is used for both edible and industrial purposes. The residual meal is a useful high protein stockfeed; the hulls may be used as fuel.

Until 1964 cotton growing was mainly confined to Queensland, most of it being grown under conditions of natural rainfall. Since then there has been an increasing trend in the use of irrigation. A sound industry has been established in the Namoi and Macquarie Valleys in New South Wales with water provided by the Keepit and Burrendong Dams. More than three-quarters of Australia's raw cotton requirements are now produced in that area. Cotton is also grown under irrigation in Queensland and on the Ord River of Western Australia. Nearly all Australian cotton is now grown with the assistance of irrigation and yields compare more than favourably with those obtained by traditional overseas cotton producing countries. Australian production currently satisfies all the requirements of local mills for short and medium staple cotton and should in the future, supply the comparatively small quantities of longer staple combing cottons currently imported. Cotton production in 1972 was 192,000 bales with an export surplus of some 75,000 bales. The 1973 cotton crop was reduced by floods and insect damage to 139,713 bales and again in 1974 floods lowered production to an estimated 132,009 bales.

Cotton area, production and yield per hectare

COTTON: AREA, PRODUCTION AND YIELD PER HECTARE

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA (HECTARES)									
1968-69	24,188	..	5,394	..	4,768	..	..	..	34,350
1969-70	22,930	..	5,406	..	3,370	..	..	..	31,706
1970-71	26,403	..	5,213	..	2,918	..	..	..	34,534
1971-72	29,310	..	6,897	..	3,442	..	..	..	39,649
1972-73	31,747	..	8,008	..	3,861	..	..	..	43,616
PRODUCTION (UNGINNED) ('000 kg)									
1968-69	78,816	..	12,748	..	11,773	..	..	..	103,337
1969-70	62,951	..	12,183	..	9,779	..	..	..	84,913
1970-71	38,611	..	8,705	..	9,435	..	..	..	56,751
1971-72	100,822	..	18,585	..	12,564	..	..	..	131,971
1972-73	71,906	..	13,464	..	11,271	..	..	..	96,641
YIELD PER HECTARE (kg)									
1968-69	3,258	..	2,363	..	2,469	..	..	..	3,008
1969-70	2,745	..	2,254	..	2,902	..	..	..	2,678
1970-71	1,462	..	1,670	..	3,233	..	..	..	1,643
1971-72	3,440	..	2,695	..	3,650	..	..	..	3,328
1972-73	2,265	..	1,681	..	2,919	..	..	..	2,216

Production of ginned cotton for 1967-68, 31,935,000 kg; 1968-69, 33,582,000 kg; 1969-70, 31,874,000 kg; and 1971-72, 38,966,000 kg. Figures for 1970-71 are not available.

The gross value of cotton for each of the five years from 1968-69 to 1972-73 was \$20,964,000; \$19,073,000; \$13,292,000; \$30,765,000; and \$32,625,000 respectively.

Imports and exports of raw cotton

RAW COTTON(a): IMPORTS AND EXPORTS, AUSTRALIA

		1968-69	1969-70	1970-71	1971-72	1972-73
Imports—						
Quantity	'000 kg	5,668	4,707	6,995	8,939	3,830
Value	\$'000 f.o.b.	3,766	3,002	4,313	5,784	2,673
Exports—						
Quantity	'000 kg	3,733	11,541	7,416	2,421	22,290
Value	\$'000 f.o.b.	1,890	5,124	3,431	1,555	11,347

(a) Excludes linters.

Uganda and Tanzania were the principal importing countries, taking 2,345,000 kg and 696,000 kg respectively in 1972-73.

Peanuts

Peanuts, or groundnuts, are a sub-tropical legume (and hence summer growers), the pods of which mature beneath the surface of the soil. They thus require well drained, light textured soils. At harvest the plant is pulled, wind-rowed, field-cured for two to four weeks, and then threshed to recover the pods. The main products of the industry are nuts, peanut oil and oil cake.

In Australia, peanuts for crushing for oil arise as a by-product in the production of nuts for edible purposes. The oil is used extensively as a cooking and salad oil and in the manufacture of margarine.

The production of peanuts in Australia is confined mainly to Queensland, although small quantities are grown in New South Wales, the Northern Territory and, in some years, Western Australia.

PEANUTS: AREA AND PRODUCTION

Year	Area (hectares)			Production ('000 kg)		
	N.S.W.	Qld	Aust.	N.S.W.	Qld	Aust.
1968-69	74	31,749	(a)31,823	95	16,885	(a)16,980
1969-70	94	33,504	(a)33,598	205	42,512	(a)42,717
1970-71	158	38,403	(a)38,584	262	30,846	(a)31,123
1971-72	227	33,479	(a)33,746	242	45,774	(a)46,060
1972-73	336	28,787	(a)29,136	504	37,992	(a)38,496

(a) Incomplete; excludes Northern Territory for 1968-69 and 1969-70 and Western Australia for the three years 1970-71 to 1972-73.

The gross value of the 1972-73 crop was \$10,539,000 which was approximately \$1,695,000 less than in 1971-72. Total supplies available for consumption in Australia in 1972-73 were 19,074 tonnes in shell equivalent. Exports of peanuts and peanut products for the year were 11,092 tonnes.

Flax for linseed

The flax plant is a summer-growing annual. Varieties have been developed for the production of either fibre or linseed. Linseed, when crushed, yields an industrial oil used extensively in the manufacture of paint and linoleum. The introduction of synthetics into these fields has reduced the demand for linseed oil. Flax for the production of fibre was last recorded in 1964-65. Production of linseed during 1972-73 was 16,688 tonnes.

The main producing areas are the wheat belt of New South Wales, western and north-eastern districts of Victoria, the Esperance district of Western Australia and the Darling Downs in Queensland.

FLAX FOR LINSEED: AREA AND PRODUCTION

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
Area (hectares)—						
1968-69	6,137	5,789	8,684	415	7,545	28,570
1969-70	20,014	7,640	8,706	395	12,469	49,224
1970-71	20,538	6,830	3,556	281	10,421	41,626
1971-72	9,391	3,694	1,872	172	4,794	19,923
1972-73	6,762	5,843	2,907	534	254	16,300
Production (tonnes of linseed)—						
1968-69	2,656	5,161	6,230	356	5,406	19,809
1969-70	14,732	9,502	5,793	361	6,285	36,673
1970-71	17,189	6,472	1,968	258	4,918	30,805
1971-72	3,713	3,388	1,301	92	1,735	10,229
1972-73	1,889	5,471	1,948	1,316	64	10,688

Hops

Hops are grown from perennial rootstocks over deep, well-drained soils in localities sheltered from the wind. The hop-bearing vine shoots are carried upon wire and coir trellises, from which they are later harvested. The green hops are kiln-dried and bleached with sulphur dioxide fumes, following which the cured hops are pressed into bales.

Hop growing in Australia is confined to the Derwent, Huon and Channel areas in the south-east, and the Scottsdale-Ringarooma district in the north-east of Tasmania, and the Ovens and King Valleys in Victoria. A small area is also under hops in Western Australia, near Manjimup, but details are not available for publication.

Production and imports of hops

The production of hops in Australia is adequate to meet local requirements, and in recent years small quantities have been exported. In the following table details of the production and imports of hops and the quantity of hops used in breweries are shown for recent years. Exports of hops are negligible and are not recorded separately.

HOPS: PRODUCTION AND DISPOSAL, AUSTRALIA

<i>Year</i>	<i>Production(a)</i>	<i>Imports</i>	<i>Net available supplies(b)</i>	<i>Quantity used in breweries</i>
	'000 kg	'000 kg	'000 kg	'000 kg
1968-69 . . .	2,172	76	2,248	1,731
1969-70 . . .	2,048	18	2,066	1,755
1970-71 . . .	1,706	18	1,724	1,761
1971-72 . . .	1,847	20	1,867	1,553
1972-73 . . .	2,113	37	2,150	1,294

(a) Excludes production in Western Australia, for which details are not available for publication. (b) Disregards movements in stocks.

Rapeseed

Rapeseed is obtained from several varieties of brassica, which are cultivated in temperate and warm temperate zones for their oil-producing seed.

The introduction of wheat quotas in Australia and the buoyant world market for oilseeds has brought about an expansion of areas sown to rape in the past three years in New South Wales, Western Australia, Victoria and South Australia.

Domestic production has increased from 4,464 tonnes in 1969-70 to 25,037 tonnes in 1972-73 but declined to 12,750 tonnes for 1973-74 as a result of disease problems.

Rapeseed oil is used mainly as a salad and cooking oil with some minor amounts being utilised for industrial purposes. A protein meal is derived as a by-product in the crushing process.

Safflower

Safflower is best cultivated either in the warm temperate zones or as a winter crop in the tropical or sub-tropical regions, on moderately fertile, weed-free, clay or sandy loams. Adequate moisture is required up to the flowering stage, after which it is relatively drought resistant. The soil preparation and sowing techniques are similar to those employed for small grains; it is usually harvested by headers when the seed is hard and dry. The oil, produced by crushing, is used in the manufacture of margarine, soaps, paints, varnishes, enamels, and textiles.

SAFFLOWER: AREA AND PRODUCTION

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA (HECTARES)									
1968-69	977	81	17,640	..	69	..	..	..	18,767
1969-70	6,484	20	3,834	(a)	487	..	..	..	(b)10,825
1970-71	19,834	5,071	2,053	170	546	..	..	..	27,674
1971-72	18,675	1,272	12,482	197	1,183	..	..	..	33,809
1972-73	5,782	556	3,257	74	955	..	..	..	10,624
PRODUCTION (TONNES)									
1968-69	271	23	10,026	..	21	..	..	..	10,341
1969-70	2,828	3	1,224	(a)	109	..	..	..	(b)4,164
1970-71	8,291	1,395	371	83	142	..	..	..	10,282
1971-72	10,592	722	3,462	81	541	..	..	..	15,398
1972-73	1,538	328	2,126	46	135	..	..	..	4,173

(a) Not available for publication. (b) Incomplete; see individual States.

Imports of crude safflower seed oil in 1971-72 and 1972-73 totalled 3,117,000 litres and 2,791 tonnes respectively. These imports came mainly from the United States of America.

Sunflower seed

Sunflowers are summer growing annuals produced mainly under raingrown conditions in the three eastern mainland States of Australia. The cultivation of sunflowers has developed rapidly in recent years to make it one of the major oilseed crops.

The seed for which the plant is cultivated yields a high quality dual purpose oil and a by-product protein meal used for stockfeed. Main uses for the oil are in the manufacture of margarine, as a salad and cooking oil, and for industrial purposes.

The introduction of wheat quotas and the development of high oil yielding varieties of sunflower seed have resulted in an increase in Australian production from 13,248 tonnes in 1969-70 to 147,525 tonnes in 1971-72 and production fell to 102,069 tonnes in 1972-73.

Vegetables for human consumption

Area, production and trade

Because of the wide diversity of climatic conditions across Australia, supplies for main city markets are drawn from widely different areas, depending upon the times of maturity of the various crops. Apart from potatoes and onions, which are sold in some States through marketing boards, the bulk of vegetable trading takes place at the metropolitan markets of the cities concerned.

Details of the areas planted and production of individual kinds of vegetables are shown below. Certain particulars shown are incomplete in that details for specific vegetables in some States are either not available or are not available for publication. For further information see the bulletin *Crop Statistics* (10.58). Details of the estimated consumption of vegetables for a series of years are given in the chapter Miscellaneous.

VEGETABLES FOR HUMAN CONSUMPTION: AUSTRALIA

Vegetable	1970-71		1971-72		1972-73	
	Area sown	Production	Area sown	Production	Area sown	Production
	hectares	tonnes	hectares	tonnes	hectares	tonnes
Asparagus	1,876	5,278	1,991	6,711	2,450	6,756
Beans, french and runner	7,494	33,878	7,972	38,105	7,512	33,441
Beetroot	766	19,367	831	23,346	832	22,801
Cabbages and brussel sprouts	2,547	71,192	2,715	80,228	2,630	69,534
Carrots	3,046	84,731	2,950	89,222	2,935	81,624
Cauliflowers	2,651	78,795	2,682	78,586	2,568	72,163
Celery	386	15,560	438	17,281	390	17,466
Cucumbers	934	11,006	1,092	13,798	1,089	13,800
Lettuce	2,179	26,108	2,191	27,108	2,183	27,247
Onions	4,331	92,951	4,419	100,352	4,464	93,234
Parsnips	495	11,415	469	10,357	436	9,118
Peas, green	16,267	81,288	21,468	118,345	21,540	114,136
Potatoes	38,619	746,973	40,401	821,802	36,607	692,606
Tomatoes	7,357	176,258	8,316	189,163	7,656	178,870
Turnips, swede and white	787	8,803	857	10,586	803	10,405
All other	17,471	..	18,224	..	16,852	..
Total	107,206	..	117,016	..	110,947	..

Processed vegetables

Total production of canned vegetables in 1972-73 amounted to 104,170,000 kg. The principal type produced were baked beans (including pork and beans), 23,680,000 kg; beetroot, 22,465,000 kgs; green peas (excluding mint processed peas), 11,056,000 kg; tomatoes, 4,889,000 kg; asparagus, 5,918,000 kg; and sweet corn, 5,172,000 kg. Production of potato crisps, chips and flakes during 1972-73 was 15,658,000 kg.

There has been rapid development in the quick-frozen vegetable industry. Data were collected for the first time in 1957-58, when 6,280,000 kg of frozen vegetables were produced, made up principally of 4,595,000 kg of peas and 1,152,000 kg of beans. In 1972-73 the production was 90,808,000 kg, of which 39,524,000 kg were peas, 17,797,000 kg were beans and 21,198,000 kg were potatoes.

Exports and imports of vegetables

Overseas exports of fresh and frozen vegetables during 1972-73 amounted to 24,878,000 kg valued at \$3,920,000; dried vegetables, 6,395,000 kg valued at \$2,623,000; preserved vegetables, 423,000 kg valued at \$263,000; and other prepared or preserved vegetables, 1,454,000 kg valued at \$713,000.

Imports of fresh and frozen vegetables during 1972-73 amounted to 11,382,000 kg valued at \$3,128,000.

Potatoes

This crop requires deep friable soils, which in Australia are usually basaltic, alluvial or swampy in origin. Fertiliser requirements, which are generally high, vary with the type of soil. Potatoes are killed by heavy frost, but require only moderate temperatures for growth. Mechanical planters and diggers are used to a variable extent depending upon a variety of factors including terrain, state of the soil and scale of operations. Seed certification schemes or approvals which operate in most States provide supplies of seed. In Australia potatoes are used almost entirely for human consumption primarily in the fresh forms although in recent years increasing quantities of potatoes have been used for processing.

POTATOES: AREA, PRODUCTION AND YIELD PER HECTARE

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA (HECTARES)									
1968-69	11,831	16,179	7,493	3,093	2,666	4,638	(a)	6	(b)45,906
1969-70	10,467	16,092	7,168	3,246	2,562	3,791	11	4	43,341
1970-71	8,944	14,150	6,445	2,898	2,528	3,640	9	5	38,619
1971-72	9,987	13,986	7,365	2,775	2,684	3,593	11	(a)	(b)40,401
1972-73	9,134	13,120	5,960	2,673	2,378	3,330	12	(a)	(b)36,607
PRODUCTION (TONNES)									
1968-69	163,404	304,775	124,964	69,110	75,630	73,278	(a)	133	(b)811,294
1969-70	144,327	284,040	117,308	79,886	68,242	67,994	(a)	(a)	(b)761,797
1970-71	145,688	276,569	110,403	72,526	69,150	72,591	(a)	46	(b)746,973
1971-72	171,081	306,708	132,618	71,741	68,420	70,370	144	(a)	(b)821,802
1972-73	130,301	258,892	92,164	69,483	63,282	78,286	198	(a)	(b)692,606
YIELD PER HECTARE (TONNES)									
1968-69	13.812	18.837	16.677	22.344	28.368	15.799	(a)	22.166	(b)17.673
1969-70	13.789	17.651	16.366	24.611	26.636	17.936	(a)	(a)	(b)17.577
1970-71	16.289	19.546	17.130	25.026	27.354	19.943	(a)	9.200	(b)19.342
1971-72	17.130	21.930	18.007	25.853	25.492	19.585	13.091	(a)	(b)20.341
1972-73	14.265	19.733	15.464	25.994	26.611	23.509	16.500	(a)	(b)18.920

(a) Not available for publication. (b) Incomplete; see individual territories.

The production of potatoes from 1945-46 is shown in plate 49, below.

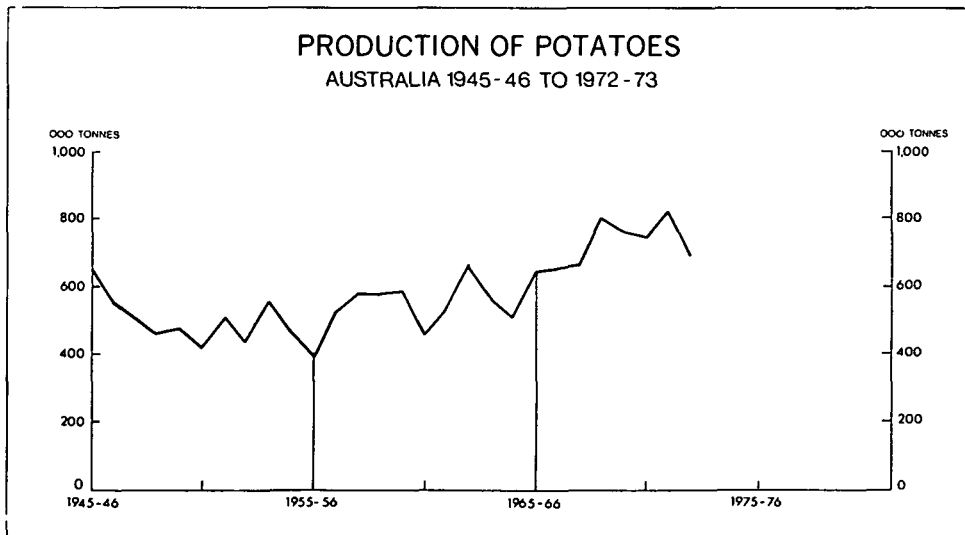


PLATE 49

Potato marketing boards were established in all States except Tasmania under separate State legislation after Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948. The life of the Queensland Board was not extended when its term ended in 1954. The New South Wales Board was voted out by growers in 1956, and the Victorian Board also ceased functioning in that year. The Boards in South Australia and Western Australia are the only statutory boards still in operation.

Consumption and export of potatoes. The annual consumption of potatoes in Australia during each of the three years 1970-71 to 1972-73 amounted to 686,700 tonnes, 758,900 tonnes and 635,900 tonnes respectively or 54.3 kg, 58.8 kg and 48.6 kg respectively per head of population. These figures exclude the quantities used for seed, which averaged about 48,000 tonnes annually over this period. Details showing exports and imports for recent years are given in the following table.

POTATOES: EXPORTS AND IMPORTS, AUSTRALIA

Year	Exports		Imports	
	Quantity	Value	Quantity	Value
	tonnes	\$'000 f.o.b.	tonnes	\$'000 f.o.b.
1968-69	12,792	966	241	12
1969-70	20,914	1,474	..	..
1970-71	11,659	978	..	..
1971-72	11,952	1,039	..	..
1972-73	10,558	952	..	..

Australia's principal markets are Papua New Guinea, Singapore, New Caledonia and Sri Lanka.

Fruit

The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics to strawberries, raspberries and currants in the colder parts of the temperate zone. In New South Wales citrus fruit (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears and cherries are grown extensively. The principal varieties grown in Victoria are apples, pears, peaches, oranges, and apricots. In Queensland apples, pineapples, bananas, oranges, mandarins, peaches and plums are the major fruits cultivated. In South Australia, in addition to oranges, apples, peaches, apricots, and pears, almonds and olives are grown extensively. In Western Australia apples, oranges, plums, and pears are the chief varieties. In Tasmania apples are by far the most important type of fruit grown, but small fruit, such as currants, raspberries and gooseberries, are also grown extensively, the balance of the area being occupied mainly with pears and apricots.

Area and production of fruit

The total area under fruit in Australia in 1972-73 was 115,500 hectares, 9.7 per cent less than the record area established in 1965-66.

FRUIT (EXCLUDING GRAPEVINES): AREA^(a)
(hectares)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968-69	38,319	28,974	21,348	18,007	10,267	8,672	36	13	125,636
1969-70	38,576	28,685	21,468	18,131	9,766	8,563	29	15	125,233
1970-71	37,702	26,958	22,157	18,332	9,627	8,432	49	15	123,272
1971-72	39,215	27,206	22,424	17,191	9,129	7,822	88	14	123,089
1972-73	34,887	25,785	22,111	16,730	8,680	7,223	70	14	115,500

(a) Bearing and not bearing.

ORCHARD FRUIT (INCLUDING EDIBLE TREE NUTS), TOTAL NUMBER OF TREES 1972-73
(^{'000})

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Pome—									
Apples . . .	1,596	1,606	1,302	645	1,171	2,412	..	5	8,737
Pears . . .	258	1,633	124	200	87	145	..	..	2,447
Quinces . . .	1	5	(a)	2	..	..	..	..	(b)9
Citrus—									
Oranges . . .	2,617	653	259	1,465	356	..	1	..	5,351
Lemons and limes . . .	350	121	44	110	43	..	..	..	668
Mandarins . . .	197	60	244	81	56	..	..	..	638
Grapefruit . . .	131	50	24	76	14	..	1	..	297
Stone—									
Apricots . . .	136	307	52	454	18	45	..	..	1,011
Cherries . . .	375	197	(a)	68	8	9	..	(a)	(b)657
Nectarines . . .	44	55	50	27	9	3	..	..	188
Peaches . . .	599	1,280	161	412	66	4	..	(a)	(b)2,521
Plums and prunes . . .	488	167	155	80	84	4	..	(a)	(b)978
Nuts—									
Almonds . . .	2	36	..	662	3	..	..	..	703
Macadamia . . .	49	..	143	..	..	..	..	..	192
Walnuts . . .	1	9	..	6	2	..	..	..	18
Other orchard n.e.i.—									
Custard apples . . .	1	..	16	..	(a)	..	..	..	(b)17
Figs . . .	2	3	(a)	7	1	..	..	..	(b)13
Mangoes . . .	..	..	57	..	1	..	1	..	59
Olives . . .	15	96	..	56	19	..	..	(a)	(b)187

(a) Not available for publication.

(b) Incomplete; see individual States.

ORCHARD FRUIT (INCLUDING EDIBLE TREE NUTS), PRODUCTION 1972-73
(Tonnes)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Pome—									
Apples . . .	65,588	90,870	37,643	27,939	56,386	133,807	..	105	412,338
Pears . . .	15,112	122,732	4,013	10,475	4,643	6,161	..	3	163,139
Quinces . . .	65	210	(a)	151	3	6	..	..	(b)435
Citrus—									
Oranges . . .	153,273	44,378	19,232	125,706	8,976	..	13	..	351,578
Lemons and limes . . .	14,444	5,772	4,579	4,603	2,539	..	9	..	31,946
Mandarins . . .	6,089	2,610	11,448	2,755	1,184	..	3	..	24,089
Grapefruit . . .	6,266	2,907	984	5,657	308	..	7	..	16,129
Stone—									
Apricots . . .	5,680	12,836	1,236	7,535	551	323	..	..	28,161
Cherries . . .	4,464	4,340	(a)	1,059	50	33	..	..	(b)9,946
Nectarines . . .	1,278	1,388	1,163	1,024	328	54	..	..	5,235
Peaches . . .	28,092	56,641	3,697	22,851	2,167	62	..	..	113,510
Plums and prunes . . .	12,276	1,722	4,560	1,271	3,862	81	..	..	23,772
Nuts—									
Almonds . . .	1	4	..	1,501	1	..	..	..	1,507
Macadamia . . .	21	..	34	..	..	..	..	..	56
Walnuts . . .	4	46	..	18	7	..	..	..	75
Other orchard n.e.i.—									
Custard apples . . .	1	..	382	..	(a)	..	..	..	(b)383
Figs . . .	51	41	(a)	265	14	..	..	..	(b)371
Mangoes . . .	9	..	1,604	..	12	..	34	..	1,659
Olives . . .	359	1,024	..	799	218	..	..	..	2,400

(a) Not available for publication.

(b) Incomplete; see individual States.

BERRY AND OTHER FRUITS (EXCLUDING GRAPEVINES) 1972-73

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
TOTAL AREA BEARING AND NOT BEARING (HECTARES)									
Small and berry fruit—									
Currants (black, red) . . . . .	..	..	..	(a)	..	321	..	..	(b)321
Raspberries . . . . .	..	57	..	8	..	216	..	..	281
Strawberries	51	173	121	67	13	27	..	..	452
Other	11	84	10	3	2	51	..	..	161
Other fruit—									
Bananas	6,816	..	2,601	..	181	..	21	..	9,619
Papaws	40	..	353	..	..	..	2	..	395
Passionfruit	60	20	240	..	36	..	..	..	356
Pineapples	57	..	6,218	..	(a)	..	6	..	(b)6,281

PRODUCTION (TONNES)

Small and berry fruit—									
Currants (black, red) . . . . .	..	..	..	(a)	..	905	..	..	(b)905
Raspberries . . . . .	..	136	..	26	..	1,466	..	..	1,628
Strawberries	340	1,352	933	582	142	112	..	..	3,461
Other fruit—									
Bananas	83,972	..	34,542	..	5,076	..	242	..	123,832
Papaws	124	..	2,705	..	..	..	17	..	2,846
Passionfruit	291	16	1,973	..	87	..	..	..	2,367
Pineapples	499	..	125,838	..	(a)	..	16	..	(b) 1,263

(a) Not available for publication. (b) Incomplete; see individual States.

Principal fruit crops

PRINCIPAL FRUIT CROPS: PRODUCTION AND GROSS VALUE OF PRODUCTION, AUSTRALIA

<i>Year</i>	<i>Apples</i>	<i>Apricots</i>	<i>Bananas</i>	<i>Oranges</i>	<i>Peaches</i>	<i>Pears</i>	<i>Pineapples</i>	<i>Plums and prunes</i>
PRODUCTION ('000 TONNES)								
1968-69	422	44	125	264	108	107	121	24
1969-70	424	40	131	234	113	190	121	26
1970-71	443	53	131	322	123	188	141	31
1971-72	360	32	128	291	117	184	154	23
1972-73	412	28	124	352	114	163	126	24
GROSS VALUE OF PRODUCTION (\$'000)								
1968-69	56,146	6,992	19,128	26,095	12,685	13,512	7,482	4,697
1969-70	56,120	7,438	24,961	29,026	15,101	23,809	7,144	5,828
1970-71	58,339	9,392	20,033	33,029	15,760	20,855	9,722	6,360
1971-72	50,310	7,764	20,958	30,423	15,876	19,448	9,629	5,228
1972-73	65,782	6,929	28,217	33,647	17,505	23,674	12,202	5,973

Production and consumption of jams and jellies and preserved fruit

In Australia considerable quantities of fruit are used in the production of jams and jellies and for preserving. Fruit usage in factories in 1968-69 and 1969-70 amounted to 466,000 tonnes and 494,000 tonnes respectively. Statistics for 1970-71 are not available. During 1972-73 output of jams conserves, fruit spreads, etc., amounted to 33,166,000 kg, while output of preserved fruit amounted to 273,897,000 kg. Of the latter figure, peaches accounted for 93,172,000 kg, pears 60,925,000 kg, pineapples 33,107,000 kg and mixed fruits 49,333,000 kg.

Details of the estimated consumption of fruit and fruit products for a series of years are shown in the chapter, Miscellaneous.

Imports and exports of fruit and fruit products

The imports of fresh fruit into Australia are negligible, while those of dried fruit consists mainly of dates, approximately 90 per cent of which are obtained from Iraq and Iran, the bulk of the remainder coming from Turkey and the People's Republic of China. A considerable export trade in fresh and chilled, and dried fruit is carried on by Australia with overseas countries. The values of the shipments in 1972-73 amounted to \$32,274,000 for fresh and chilled fruit, and \$28,500,000 for dried fruit. Apples constitute over half of the fresh fruit exported, although exports of pears and citrus fruits are considerable.

FRESH AND CHILLED FRUIT: EXPORTS, AUSTRALIA

Year	Apples		Pears		Citrus		Total value(a)
	Quantity	Value	Quantity	Value	Quantity	Value	
	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.	\$'000 f.o.b.
1968-69 . . .	130,242	19,964	21,161	4,107	30,986	4,423	29,427
1969-70 . . .	134,628	20,410	36,888	6,486	21,825	3,216	31,019
1970-71 . . .	142,073	21,881	34,486	6,411	26,998	3,721	32,971
1971-72 . . .	98,326	15,889	34,434	6,969	34,712	4,824	28,680
1972-73 . . .	116,974	18,016	42,309	9,141	32,554	4,682	32,929

(a) Includes exports of all other fresh and chilled fruit.

The quantity and value of overseas imports and exports of dried fruit, other than sultanas, raisins and currants, are shown below.

DRIED TREE FRUIT(a): IMPORTS AND EXPORTS, AUSTRALIA

Year	Imports		Exports	
	Quantity	Value	Quantity	Value
	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.
1968-69 . . .	4,688	933	2,548	2,120
1969-70 . . .	5,368	1,162	2,225	1,730
1970-71 . . .	3,906	989	2,281	1,537
1971-72 . . .	3,830	1,046	3,422	2,208
1972-73 . . .	4,897	1,165	2,917	2,313

(a) Excludes sultanas, raisins and currants dealt with separately under Vineyards (see below).

Exports of jams and jellies in 1972-73 were 3,348,000 kg valued at \$1,175,000, compared with 2,853,000 kg, valued at \$1,132,000 in 1971-72. Imports of jams and jellies in 1972-73 were 1,445,000 kg, valued at \$654,000, compared with 1,829,000 kg, valued at \$812,000 in 1971-72.

EXPORTS OF CANNED OR BOTTLED FRUIT: AUSTRALIA

Year	Peaches		Pears		Fruit salad		Apricots		Total Value(a)
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.	\$'000 f.o.b.
1968-69	57,232	14,533	41,612	11,361	16,919	5,345	6,337	1,726	37,842
1969-70	56,485	14,783	37,204	10,708	15,105	5,104	5,646	1,611	37,231
1970-71	49,986	13,971	51,377	14,380	21,377	7,201	6,697	1,924	42,891
1971-72	47,729	13,202	37,825	10,809	18,159	6,337	5,470	1,623	36,462
1972-73	69,112	18,638	53,386	15,499	19,855	6,845	6,843	2,102	48,223

(a) Includes exports of all other canned or bottled fruit.

Exports of pulped fruit during 1972-73 amounted to 1,730,000 kg valued at \$633,000.

The total value of preserved fruit and fruit preparations (including fruit juices) imported into Australia during 1972-73 was \$2,717,000. The value of exports of fruit juices in 1972-73 was \$2,854,000.

Vineyards

Grapes require a warm to hot climate and a predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for wine-making, drying and, to a minor extent, for table use. In Australia wine is produced very largely from irrigated crops, as are dried fruits. Some of the better known wine producing areas are the Murray Valley (South Australia and Victoria), Barossa Valley and Southern Vales Areas (South Australia), the Murrumbidgee Irrigation Areas and the Hunter Valley (New South Wales), the Mildura, Rutherglen and Stawell districts of Victoria, and the Swan Valley (Western Australia). Nearly all the dried fruit is produced along the River Murray and its tributaries, with small localised areas in other States.

Area of vineyards

The area under vineyards in the 1972-73 season in Victoria and South Australia constituted 75 per cent of the total area of the vineyards.

VINEYARDS: AREA(a)

(Hectares)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
1968-69	9,206	19,817	1,420	24,513	2,942	57,898
1969-70	10,287	20,169	1,463	26,239	2,690	60,848
1970-71	11,247	20,612	1,556	27,653	2,715	63,783
1971-72	12,655	20,794	1,571	28,769	2,726	66,515
1972-73p	13,274	21,526	1,560	29,528	2,614	68,502

(a) Bearing and not bearing.

Wine industry

Australia produces wine of every type and also brandy. In recent years there has been a distinct trend towards greater consumption and production of unfortified or table wines. Until 1957-58 production of these wines (which include burgundy, claret, riesling, sauterne, and sparkling wines) was less than half that of the fortified varieties (sherries, ports, etc.). By 1968-69 production of table wines had exceeded the volume of fortified varieties and in 1973-74, production of unfortified wines exceeded fortified wines by 64 million litres.

Production and consumption of wine and brandy

In 1973-74 the total production of wine (beverage and distillation) in Australia was 294.7 million litres, while total consumption of beverage wine was 148.1 million litres (11.2 litres per head of population). Similar particulars for 1972-73 are 279.9 million litres and 130.0 million litres (9.9 litres per head of population) respectively.

WINE: PRODUCTION^(a)
(^{'000} litres)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Aust.(b)</i>
1968-69 . . .	41,437	28,112	(c)	165,502	(c)	239,474
1969-70 . . .	55,104	31,935	(c)	203,139	(c)	294,400
1970-71 . . .	46,409	30,079	(c)	173,899	(c)	254,965
1971-72 . . .	66,545	35,835	(c)	183,276	(c)	290,239
1972-73 . . .	61,580	25,840	(c)	188,315	(c)	279,943

(a) Beverage and distillation wine. (b) Includes Tasmania. (c) Confidential—not available for publication.

**BRANDY: PRODUCTION, SOUTH AUSTRALIA
AND AUSTRALIA**
(^{'000} litres alcohol)

<i>Year</i>	<i>S.A.</i>	<i>Aust.(a)</i>
1968-69	876	2,855
1969-70	1,114	3,486
1970-71	3,496	3,849
1971-72	1,479	4,485
1972-73	3,064	3,589

(a) Includes New South Wales and Victoria, for which separate details are not available for publication.

Exports and imports of wine and brandy

Principal markets for exports of Australian wine are the United Kingdom, Canada and Papua New Guinea. During 1972-73 these countries received 718,000 litres, 1,372,000 litres and 468,000 litres respectively. Exports of Australian-produced wine and imports of wine for recent years are shown in the following table.

WINE: EXPORTS AND IMPORTS, AUSTRALIA

<i>Year</i>	<i>Quantity</i>			<i>Value f.o.b.</i>		
	<i>Sparkling</i> (^{'000} <i>litres</i>)	<i>Other</i> (^{'000} <i>litres</i>)	<i>Total</i> (^{'000} <i>litres</i>)	<i>Sparkling</i> (\$ ^{'000})	<i>Other</i> (\$ ^{'000})	<i>Total</i> (\$ ^{'000})
EXPORTS						
1968-69	332	7,869	8,201	314	3,086	3,400
1969-70	377	5,510	5,887	348	2,565	2,913
1970-71	395	6,169	6,564	391	3,188	3,579
1971-72	386	7,587	7,973	401	3,844	4,245
1972-73	547	4,110	4,657	550	2,670	3,220
IMPORTS						
1968-69	395	1,668	2,063	495	1,379	1,874
1969-70	473	1,482	1,955	597	1,323	1,920
1970-71	536	1,850	2,386	780	1,801	2,581
1971-72	555	1,927	2,482	781	2,070	2,851
1972-73	672	2,237	2,909	1,002	2,523	3,525

During 1972-73 Italy supplied 769,000 litres valued at \$745,000, Portugal 719,000 litres valued at \$583,000 and France 429,000 litres valued at \$1,095,000.

Exports of Australian-produced brandy in 1972-73 amounted to 218,000 litres alcohol, valued at \$451,000. Imports of brandy, mainly from France, amounted to 1,119,000 litres alcohol, valued at \$2,120,000.

Dried vine fruit industries

The dry period from November to March in the lower Murray valley makes this an ideal area for dried vine fruit. Harvesting for drying takes place at the end of summer. The sun-drying process is often accelerated by using a dip of cold potash.

In June 1963, Australian, Greek and Turkish dried vine fruit interests concluded an agreement to maintain minimum prices for sultanas on world markets. The agreement has been periodically reviewed. At the Ninth Conference in London in June 1971, representatives of the signatory countries (which had included South Africa from 1970) met for the last time as parties to the agreement and formally resolved it out of existence. Since the International Sultana Agreement was terminated in 1971 a Conference of Sultana (Raisin) Producing Countries has been held annually to maintain a high level of co-operation between the major producing countries.

DRIED VINE FRUIT: PRODUCTION (Tonnes)

Year	N.S.W.		Vic.		S.A.		W.A.		Aust.	
	Raisins (a)	Currants	Raisins (a)	Currants	Raisins (a)	Currants	Raisins (a)	Currants	Raisins (a)	Currants
1968-69	7,955	435	38,504	2,730	1,771	2,297	8	1,892	48,238	7,354
1969-70	14,344	661	68,146	3,437	3,220	3,378	8	1,085	85,718	8,561
1970-71	9,389	640	41,237	3,083	1,334	3,201	29	1,513	51,989	8,437
1971-72	15,182	583	71,521	3,244	8,551	3,098	37	1,232	95,291	8,157
1972-73	7,443	373	40,158	2,323	3,712	2,026	36	936	51,349	5,658

(a) Includes sultanas and lexias.

DRIED VINE FRUIT(a): EXPORTS, AUSTRALIA

Year	Raisins, sultanas and lexias		Currants		Total	
	Quantity	Value f.o.b.	Quantity	Value f.o.b.	Quantity	Value f.o.b.
	tonnes	\$'000	tonnes	\$'000	tonnes	\$'000
1968-69	58,874	18,240	3,492	1,203	62,366	19,443
1969-70	41,230	13,347	2,838	979	44,068	14,326
1970-71	55,663	17,140	4,261	1,322	59,924	18,462
1971-72	51,678	16,120	4,590	1,378	56,268	17,498
1972-73	69,974	25,213	2,617	897	72,591	26,110

(a) Excludes quantities exported as mincemeat.

The chief countries importing Australian dried vine fruits are the United Kingdom, Canada, New Zealand and the Federal Republic of Germany. The quantities exported to these countries in 1972-73 were 17,386 tonnes, 19,025 tonnes, 7,043 tonnes and 9,250 tonnes respectively.

Table grapes

Grapes for table use are grown in all States except Tasmania, but the area of this type was only about 3 per cent of the productive area of vines in 1972-73.

LIVESTOCK AND LIVESTOCK PRODUCTS

Livestock numbers

A detailed account of the various enumerations of livestock in Australia made prior to 1860 was given on page 748 of Year Book No. 35. Since 1861 annual enumerations have been made, based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia at decennial intervals from 1861 to 1961, and from 1969 onwards in single years, are given in the following table, and are shown continuously since 1880 on the graph on plate 50, page 795.

LIVESTOCK: AUSTRALIA, 1861 TO 1973

('000)

Year	Horses	Cattle	Sheep	Pigs	Year	Horses	Cattle	Sheep	Pigs
1861 .	432	3,958	20,135	351	1941 .	1,666	13,256	122,694	1,797
1871 .	717	4,276	41,594	543	1951 .	999	15,229	115,596	1,134
1881 .	1,069	7,527	62,184	816	1961 .	598	17,332	152,679	1,615
1891 .	1,522	10,300	97,881	891	1969 .	n.a.	20,611	174,605	2,253
1901 .	1,610	8,640	70,603	950	1970 .	456	22,162	180,080	2,398
1911 .	2,166	11,745	98,066	1,026	1971 .	n.a.	24,373	177,792	2,590
1921 .	2,416	13,500	81,796	764	1972 .	n.a.	27,373	162,910	3,199
1931 .	1,793	11,721	110,568	1,072	1973 .	n.a.	29,130	140,109	3,257

While livestock numbers (particularly sheep) have increased substantially since 1861, marked fluctuations have taken place during the period, mainly on account of widespread droughts which have from time to time left their impressions on the pastoral history of Australia. These occurred in 1868, 1877, 1883-84, 1892, 1893, 1895, 1901-2, 1912, 1914, 1918, 1919, 1922-23, 1925-26, 1927-28, 1929-30, 1940-41, 1944-45 to 1946-47, and 1965-67. The years in which the numbers of livestock attained their peaks are as follows: horses, 1919 (2,527,000); cattle, 1973 (29,130,000); sheep 1970 (180,080,000); and pigs, 1973 (3,257,000).

The distribution throughout Australia of sheep, beef cattle, dairy cattle and pigs at 31 March 1963 is shown in the maps on pages 1049 and 1050 and facing pages 1082 and 1083 of Year Book No. 50.

Sheep

Distribution throughout Australia

With the exception of a short period in the early eighteen-sixties, when the flocks in Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising. Western Australia is the second largest sheep raising State followed by Victoria. Sheep numbers reached a peak in Australia in 1970. They then declined up to March 1973 as producers turned off large numbers for slaughter and moved from wool-growing towards beef production; in 1974, however, the numbers increased to 145,173,000.

A map showing the distribution of sheep in Australia at 31 March 1963 appears on page 1049 of Year Book No. 50. Graphs showing the number of sheep in Australia from 1880 onwards appear on plates 50 and 51 of this Year Book (pages 795 and 797).

NUMBER OF SHEEP

('000)

Year ended 31 March	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1969 . . .	68,153	30,185	20,324	18,392	32,901	4,395	10	246	174,605
1970 . . .	72,284	33,157	16,446	19,747	33,634	4,560	8	244	180,080
1971 . . .	70,605	33,761	14,774	19,166	34,709	4,517	9	251	177,792
1972 . . .	62,000	29,496	14,604	17,970	34,405	4,237	7	192	162,910
1973 . . .	52,037	24,186	13,346	15,651	30,919	3,824	3	143	140,109

The percentage distribution of sheep and lambs in the several States in 1973 was: New South Wales, 37; Victoria, 17; Queensland, 10; South Australia, 11; Western Australia, 22; and Tasmania, 3.

Movement in sheep numbers

SHEEP AND LAMBS: ANALYSIS OF MOVEMENT IN NUMBERS, AUSTRALIA

('000)

Year ended 31 March	Numbers at beginning of season	Lambs marked	Net exports	Sheep and lambs slaughtered (a)	Estimated deaths on farms (b)	Numbers at close of season
1969	166,912	51,171	361	35,676	7,441	174,605
1970	174,605	56,784	487	41,045	9,777	180,080
1971	180,080	54,512	768	44,175	11,857	177,792
1972	177,792	51,705	807	52,659	13,121	162,910
1973	162,910	39,787	1,135	46,960	14,573	140,029

(a) Includes an estimate for numbers boiled down. (b) Balance figure; excludes lambs which died before marking.

Comparisons of Australian flock numbers with those of certain other principal sheep-producing countries are given on page 802.

Classification of sheep according to age, sex, and breed

SHEEP, BY AGE AND SEX: AUSTRALIA

('000)

Description	31 March				
	1969	1970	1971	1972	1973
Rams (1 year and over)	2,184	2,200	2,177	2,060	1,844
Breeding ewes (1 year and over)	83,607	85,474	84,381	75,611	68,715
Other ewes (1 year and over)	6,424	6,483	7,521	9,089	6,694
Wethers (1 year and over)	45,178	45,441	45,269	39,777	34,694
Lambs and hoggets (under 1 year)	37,212	40,482	38,443	36,374	28,162
Total sheep and lambs	174,605	180,080	177,792	162,910	140,109

Particulars of the principal breeds of sheep at 31 March 1971 (details are collected on a triennial basis) are shown in the following table.

SHEEP, BY PRINCIPAL BREED: 31 MARCH 1971

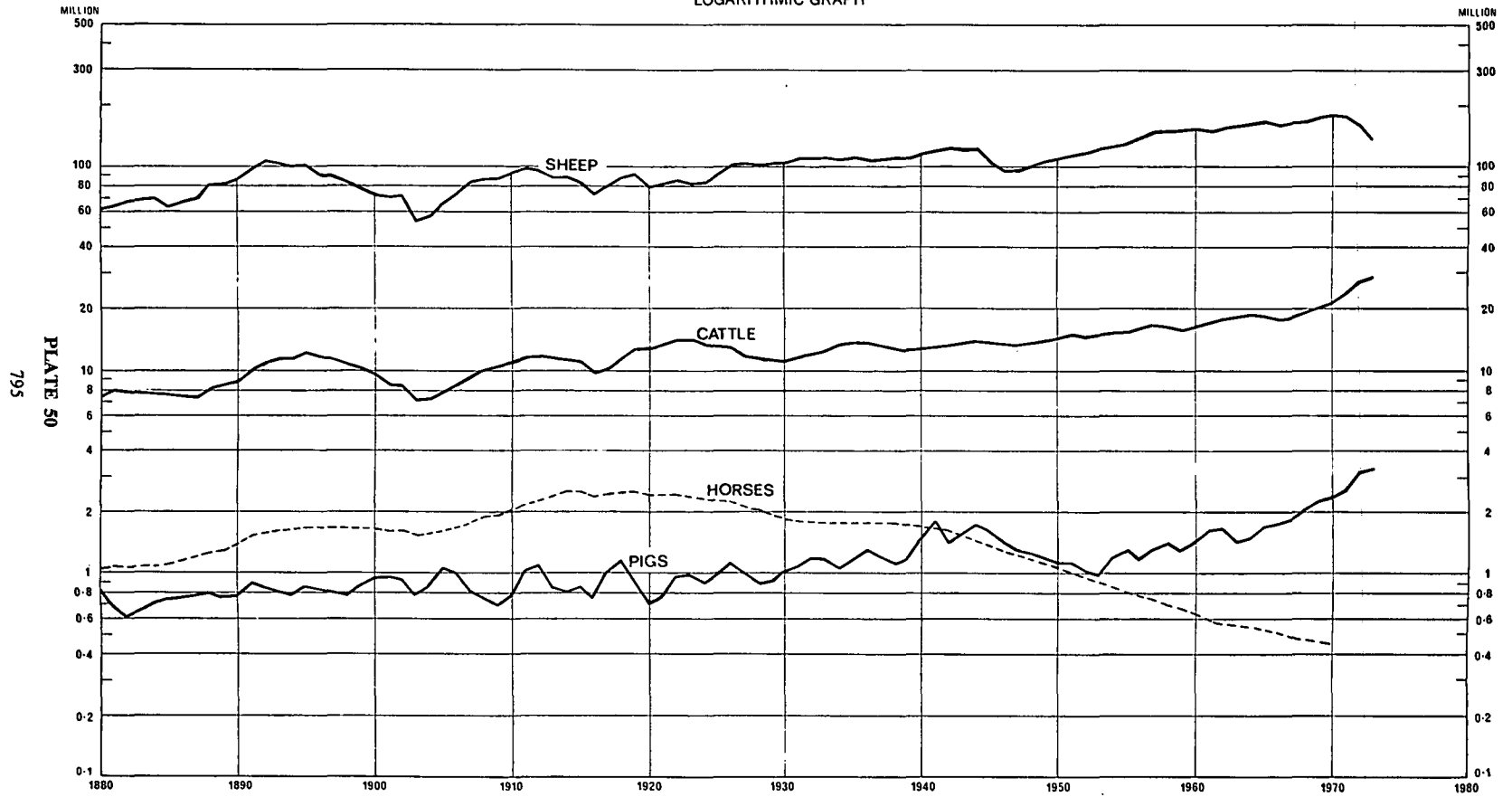
('000)

Breed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Merino	53,017	16,740	14,449	16,304	32,100	402	9	198	133,218
Other recognised breeds	5,196	6,679	137	1,244	1,267	2,904	..	11	17,438
Merino comeback(a)	1,663	2,199	25	215	363	533	..	8	5,005
Crossbreds(b)	10,729	8,144	163	1,403	979	678	..	35	22,131
Total	70,605	33,761	14,774	19,166	34,709	4,517	9	251	177,792

(a) Merino comeback is the progeny of a crossbred Merino ewe and a Merino ram, i.e. finer than half-bred. (b) Half-bred and coarser.

LIVESTOCK: AUSTRALIA, 1880 TO 1973

LOGARITHMIC GRAPH



NOTE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY SCALE
FIGURES FOR HORSES HAVE NOT BEEN COLLECTED SINCE 1970

Wool

With about one-sixth of the world's woolled sheep, Australia produces almost one-third of the world's wool and more than half the world's fine-quality Merino wool. More than 90 per cent of the production is exported, mainly as greasy wool, although substantial amounts of scoured and carbonised wool, wool on sheep skins and small quantities of semi-manufactured wool are also shipped. The important position held by Australia among the principal sheep and wool producing countries of the world is shown in the table on page 802.

Wool production

Wool as shorn from the sheep contains an appreciable amount of grease, dirt and other extraneous matter, and is termed 'greasy wool'. The quantity of grease and other matter in a fleece differs not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep. To allow for this factor, the weight of greasy wool is sometimes given on a 'clean' basis, i.e. minus the estimated amount of impurities. The net wool fibre content of greasy wool, expressed as a percentage, is termed 'clean yield'.

From 1946-47 to 1952-53 the Australian Wool Realisation Commission, and from 1953-54, the Wool Statistical Service has assessed annually the clean yield of the Australian wool clip. During the period of assessment the clean yield showed a continuous rise up to 1951-52, when it reached 57.5 per cent. It has fluctuated between 55.7 per cent and 57.7 per cent. It was 56.4 per cent in 1972-73.

Wool scoured, washed and carbonised in Australia before export, however, has a somewhat lower clean yield than the whole clip, because the grade of greasy wool treated locally for export as scoured, washed or carbonised contains quantities of dirty and low-grade wool. The quantity of scoured and carbonised wool exported during 1972-73 was about 6.8 per cent of total raw wool exports in terms of greasy. For the clean yield of Australian scoured wools exported a standard factor of 93 per cent has been adopted.

The production of wool in the States and Territories varies broadly in accordance with the number of sheep depastured and with seasonal conditions which affect clip per head (*see* page 797). In general, however, South Australia obtains from its large-framed merinos a much heavier fleece per sheep than the Australian average. In addition, as a result of better management (improved pastures, fodder conservation, better breeding, control of diseases, etc.), the long-term trend has been towards higher fleece weights.

The following table shows details of total wool (i.e. shorn, dead and fellmongered, and exported on skins) produced by each of the States and Territories during recent years. A graph showing the production of wool in relation to sheep numbers from 1880 onwards appears on plate 51, page 797.

PRODUCTION OF WOOL (GREASY BASIS)
(⁰000 kg)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968-69	305,512	165,267	112,041	108,011	170,394	21,299	50	934	883,506
1969-70	340,125	193,779	89,065	124,741	152,624	21,861	50	1,159	923,405
1970-71	314,317	195,444	76,554	117,537	158,969	21,671	36	1,000	885,528
1971-72	281,759	192,449	83,160	117,922	178,162	21,063	24	822	875,361
1972-73	226,186	172,449	70,915	100,931	146,860	18,154	10	555	736,060

The bulk of the Australian wool production (about 90 per cent in recent years) is shorn from live sheep. The remainder is obtained by fellmongering (less than one per cent) or is exported on skins (about 9 per cent). The following table shows details of total wool production according to method of obtaining wool, and also the gross value of wool produced. Gross value is based, for shorn wool, upon the average price realised for greasy wool sold at auction and, for skin wools, on prices recorded by fellmongers and skin exporters.

QUANTITY (GREASY BASIS) AND VALUE OF WOOL PRODUCED: AUSTRALIA

Year	Shorn (including crutchings)	Dead and fell- mongered	Exported on skins	Total production	
				Quantity	Value
	'000 kg	'000 kg	'000 kg	'000 kg	\$'000
1968-69	804,328	11,441	67,737	883,506	838,651
1969-70	839,084	10,057	74,264	923,405	735,233
1970-71	801,168	7,818	76,540	885,528	537,504
1971-72	776,969	8,133	90,258	875,361	660,456
1972-73	643,599	7,594	84,865	736,060	1,242,629

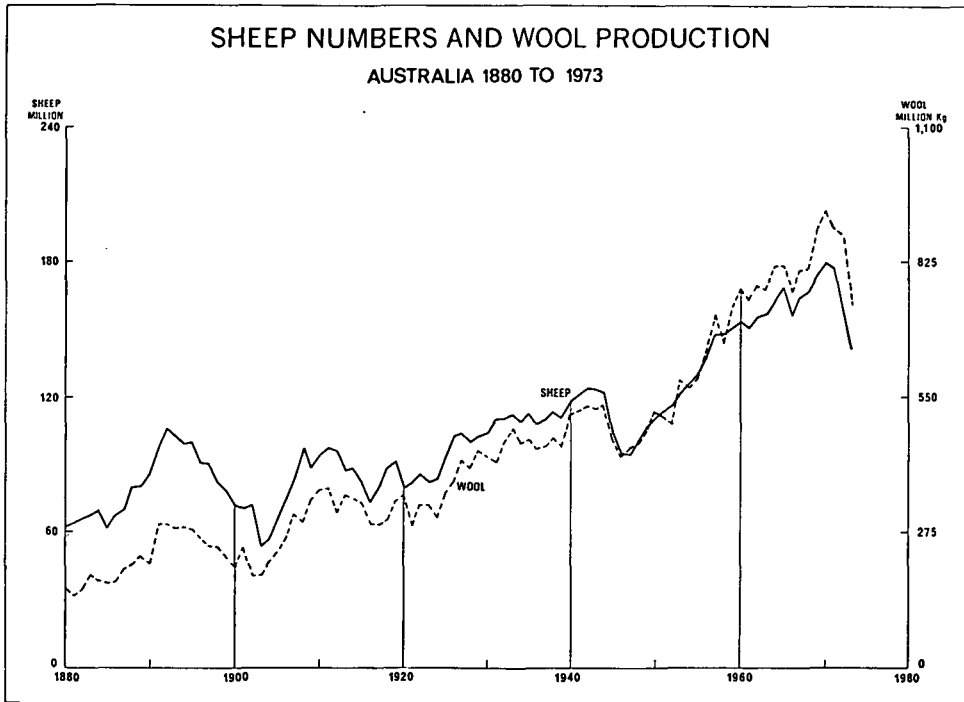


PLATE 51

Average fleece weight

AVERAGE WEIGHT OF FLEECES SHORN (SHEEP AND LAMBS)
(kg)

State or Territory	Sheep					Lambs				
	1968-69	1969-70	1970-71	1971-72	1972-73	1968-69	1969-70	1970-71	1971-72	1972-73
New South Wales	4.56	4.93	4.55	4.36	4.34	1.61	1.62	1.61	1.55	1.45
Victoria	4.44	4.84	4.67	4.52	4.45	1.34	1.37	1.39	1.36	1.24
Queensland	5.10	4.69	4.69	4.99	4.99	1.96	1.92	2.05	2.16	2.11
South Australia	6.08	6.27	5.69	6.00	5.98	1.78	1.86	1.75	1.85	1.72
Western Australia	5.31	4.70	4.68	5.10	4.64	1.57	1.35	1.38	1.57	1.38
Tasmania	4.81	4.85	4.67	4.70	4.41	1.20	1.15	1.19	1.26	1.12
Northern Territory	4.89	4.89	4.29	6.00	3.86	..	..	..	..	..
Australian Capital Territory	3.87	5.12	4.26	4.13	4.07	0.75	0.82	0.95	1.22	1.02
Australia	4.90	4.99	4.74	4.78	4.67	1.59	1.55	1.54	1.58	1.45

Classification of wool according to quality

The following table provides a detailed analysis of wool sold at auction, according to quality, for the 1972-73 season. These data are compiled by the Wool Corporation on the basis of catalogues of auction sales. 'Quality' is a measure of the fineness and texture of wool for spinning purposes.

**CLASSIFICATION OF GREASY WOOL SOLD AT AUCTION(a): AUSTRALIA
1972-73 SEASON
(Bales of approximately 136 kg)**

<i>Predominating quality (mean microns)</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>
19 and finer	75,903	37,948	2,892	622	2,248	5,402	125,015
20-21	275,503	229,660	80,567	32,652	213,430	8,310	840,122
22-23	400,993	318,327	242,923	232,856	295,535	29,256	1,519,890
<i>Total, 23s and finer</i>	<i>752,399</i>	<i>585,935</i>	<i>326,382</i>	<i>266,130</i>	<i>511,213</i>	<i>42,968</i>	<i>2,485,027</i>
24-25	83,221	167,412	45,119	152,073	78,182	29,075	555,082
26-27	66,749	123,142	8,970	50,009	25,551	16,588	291,009
28-32	86,015	129,743	4,147	18,516	9,860	13,226	261,507
33 and coarser	28,583	51,554	1,301	4,500	3,549	5,457	94,944
Oddments	13,673	11,357	10,511	6,268	26,667	2,285	70,761
Grand total	1,030,640	1,069,143	396,430	497,496	655,022	109,599	3,758,330

(a) All greasy wool sold at auction except 'wool re-offered account buyer'.

Wool marketing

Details of past wool marketing schemes and agreements, including the 1914-18 War Imperial Purchase Scheme, the British Australian Wool Realization Association Ltd, the 1939-45 War Acquisition Scheme, Joint Organization, and the Reserve Price Plans of 1951 and 1965, are given in previous issues of the Year Book.

Between 80 and 90 per cent of the Australian wool clip is disposed of at auction. (During both world wars, however, auction selling was suspended and replaced by bulk purchase schemes.) There are fourteen recognised wool-selling centres, namely Sydney, Goulburn, Newcastle, Albury, Melbourne, Geelong, Ballarat, Portland, Brisbane, Adelaide, Fremantle, Albany, Hobart, and Launceston. At these centres wool-selling brokers operate large stores where wool received from growers is held awaiting sale.

Each year a wool-selling program is drawn up by the Joint Wool Selling Organisation representing wool growers, wool buyers, the Australian Wool Corporation, selling brokers, and unions on the basis of expected clip. Selling dates and the quantities to be offered are then determined for each centre. Before each sale the selling brokers, who act as agents for the wool growers, display a representative portion of the wool to be sold on show floors for buyers' inspection and valuation. Auction sales are attended by buyers purchasing on behalf of wool users in more than fifty countries.

The balance of the clip is sold mainly through private sale, that is, after direct negotiation between the grower and the buyer. Since September 1971 a further alternative, sale by tender, has been available using the principle of sealed bidding. Companies engaged in this activity employ objective measurement techniques for wool, which can allow substantial savings in handling costs over traditional methods of wool selling by auction.

Wool marketing Committee of Enquiry

Details of this enquiry and its findings are included in previous issues of the Year Book.

Price and value

During 1972-73 the price of greasy and scoured wool sold in the selling centres of Australia averaged 183.77c per kg compared with the average price of 75.25c per kg in 1971-72 and 64.68c per kg in 1970-71. These prices are as compiled by the National Council of Wool Selling Brokers and represent the average price realised for all greasy and scoured wool, of whatever type or quality, marketed during the years indicated.

Fluctuation in Australian wool prices has a marked effect on the nation's rural and national income. In 1945-46 the gross value of wool production was \$117,194,000, representing 17.4 per cent of the gross value of production of all rural industries, while in 1950-51, when prices reached a peak, wool was valued at \$1,303,804,000 or 55.6 per cent of the total value of production for all rural industries. The value of wool production fluctuated considerably in subsequent years. In 1972-73 it was \$1,242,629,000 or 24.0 per cent of the gross value of production of rural industries.

ESTIMATED GROSS VALUE OF TOTAL WOOL PRODUCTION^(a)
(*\$'000*)

<i>Season</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
1968-69	296,005	155,547	108,060	95,054	161,589	21,180	38	1,178	838,651
1969-70	275,385	154,693	69,783	91,224	124,829	18,081	30	1,208	735,233
1970-71	198,688	118,123	44,916	65,525	94,510	14,983	17	742	537,504
1971-72	222,598	134,514	61,732	85,701	137,269	18,001	13	628	660,456
1972-73	429,825	254,434	123,512	164,577	231,599	37,481	17	1,224	1,242,629

(a) Includes shorn, dead and fellmongered wool and wool exported on skins.

Stocks of wool

Stocks of raw wool held in Australia at 30 June 1973 amounted to 114.1 million kg (greasy basis) of which 23.8 million kg (12.9 million kg as greasy and 10.9 million kg as scoured and carbonised) was held by woollen mills, wool scourers and fellmongers, and 90.4 million kg, assumed to be all greasy, was held by brokers and dealers. Of the wool held by brokers and dealers 18.4 million kg was unsold wool and 72.0 million kg was sold wool held awaiting shipment. These stocks exclude wool on skins, since this wool is not recorded as production until fellmongered in Australia or exported on skins.

Consumption of wool

Statistics of raw wool consumption published in recent years for the purposes of broad international comparisons are based on the quantities of scoured or carbonised wool used on the woollen and worsted systems (mill consumption), plus quantities used in such processes as felting. Consumption estimates compiled on this basis have obvious defects, as they disregard overseas trade in semi-processed wool (e.g. tops and yarns) as well as woollen goods. Estimates of raw wool used on the woollen and worsted systems and by felt manufacturers in Australia are shown in the following table.

ESTIMATED CONSUMPTION OF RAW WOOL: AUSTRALIA
(*'000 kg*)

<i>Year</i>	<i>Greasy basis</i>			<i>Clean equivalent</i>		
	<i>Used on woollen and worsted systems</i>	<i>Used for felt manufacture (including hats)</i>	<i>Total</i>	<i>Used on woollen and worsted systems</i>	<i>Used for felt manufacture (including hats)</i>	<i>Total</i>
1968-69	58,718	1,148	59,866	33,402	545	33,948
1969-70	59,459	1,148	60,606	33,824	545	34,369
1970-71	60,904	1,148	62,052	34,646	545	35,191
1971-72	54,108	1,148	55,256	30,965	545	31,510
1972-73	57,703	1,148	58,851	33,023	545	33,568

As considerable quantities of tops, noils and yarn are exported from Australia, the series on raw wool consumption shown above is over-stated to this extent. The series 'Estimated consumption of processed wool in Australia' provides a more reliable indication of wool consumption in Australia, as allowance has been made for exports of wool in semi-processed form. This series is shown in the following table. Briefly, the series measures consumption of wool in terms of yarn used in Australian mills and other factories to produce woollen cloth and other woollen goods, yarn used for hand knitting purposes, and scoured wool used for felt manufacture. No allowance has been made for overseas trade in woollen piece goods, clothing, etc., because of the obvious difficulties of estimating accurately the wool content of these products.

ESTIMATED CONSUMPTION OF PROCESSED WOOL: AUSTRALIA
(*000 kg)

Year	Greasy basis			Total	Clean equivalent			Total
	Worsted yarn used (a) (b)	Woollen yarn used (b)	Scoured wool used for felt manufacture (including hats)		Worsted yarn used (a) (b)	Woollen yarn used (b)	Scoured wool used for felt manufacture (including hats)	
1968-69	15,202	15,742	1,148	32,091	8,852	9,676	545	19,073
1969-70	17,782	17,170	1,148	36,100	11,000	10,392	545	21,937
1970-71	19,655	17,063	1,148	37,865	12,160	10,327	545	23,032
1971-72	21,575	18,556	1,148	41,279	12,098	10,996	545	23,640
1972-73	19,303	20,235	1,148	40,686	10,826	11,991	545	23,362

(a) Includes hand knitting yarns used. (b) Includes wool content of yarns containing a mixture of wool and other fibres.

Quantities of wool exported

Of the total shipments of greasy and slipe wool in 1972-73, 44 per cent went to Japan, 9 per cent to France, 7 per cent to Italy, 6 per cent to the Federal Republic of Germany, 5 per cent to the United Kingdom and 5 per cent to the U.S.S.R.

EXPORTS OF GREASY AND SLIPE WOOL: AUSTRALIA
(*000 kg actual weight)

Country of consignment	1968-69	1969-70	1970-71	1971-72	1972-73
Belgium-Luxembourg	38,332	38,720	44,144	27,472	26,824
France	59,178	60,325	62,342	78,346	57,343
Germany, Federal Republic of	43,701	46,056	46,117	52,036	41,022
India	15,427	19,148	16,915	15,223	6,868
Italy	59,060	61,400	42,451	52,327	43,278
Japan	240,477	258,195	254,680	285,239	299,163
Poland	15,631	15,343	12,711	18,355	22,555
Taiwan	10,146	12,345	14,226	15,692	15,691
United Kingdom	52,175	62,303	34,172	33,011	29,736
U.S.S.R.	28,131	30,570	38,795	21,328	30,264
Yugoslavia	8,528	12,069	16,655	8,671	19,665
Other	95,058	95,457	67,493	81,605	73,820
Total	665,844	711,931	650,701	689,305	666,229

EXPORTS OF SCOURED AND WASHED AND CARBONISED WOOL: AUSTRALIA
(*000 kg actual weight)

Country of consignment	1968-69	1969-70	1970-71	1971-72	1972-73
Canada	999	1,240	956	911	814
France	1,055	616	1,061	1,622	691
Germany, Federal Republic of	3,064	2,448	3,795	3,619	3,624
Hong Kong	2,057	1,972	1,799	1,458	2,131
Iran	1,865	2,214	1,896	3,117	2,041
Italy	3,362	3,773	3,522	4,840	2,679
Japan	1,653	1,665	965	1,443	3,119
Korea, Republic of	1,221	1,075	729	759	1,679
Taiwan	685	1,435	2,176	1,063	1,523
United Kingdom	6,123	6,053	6,105	5,823	6,335
United States of America	8,641	6,512	2,550	1,831	2,967
U.S.S.R.	3,512	6,966	1,046	10,246	2,284
Other	4,476	4,971	6,170	5,304	4,387
Total	38,713	40,940	32,770	42,036	34,274

EXPORTS OF CARDED OR COMBED WOOL, NOILS AND WOOLWASTE: AUSTRALIA
(^{'000} kg actual weight)

	1968-69	1969-70	1970-71	1971-72	1972-73
Carded or combed—Tops	10,942	9,940	8,892	9,949	9,070
Other	3	4	14	90	67
Noils	1,536	1,183	1,367	1,453	1,179
Waste	906	962	1,455	2,545	1,844

The following table shows the estimated greasy weights of exports of raw and semi-processed wool. As the figures in the table are expressed on a 'greasy' basis, they differ from those in the preceding tables which represent actual weight shipped.

EXPORTS OF WOOL—GREASY BASIS: AUSTRALIA
(^{'000} kg)

	1968-69	1969-70	1970-71	1971-72	1972-73
Raw wool—					
Greasy and slipe	667,588	712,985	650,875	689,619	667,995
Scoured and washed and carbonised	61,500	65,600	52,298	66,947	54,720
Exported on skins	67,737	74,264	76,540	90,258	84,865
<i>Total raw wool</i>	<i>796,825</i>	<i>852,849</i>	<i>779,713</i>	<i>846,824</i>	<i>807,580</i>
Semi-processed wool—					
Tops	17,800	19,100	17,073	18,903	17,300
Yarn	91	126	243	331	159
<i>Total raw and semi-processed wool</i>	<i>814,716</i>	<i>872,075</i>	<i>797,029</i>	<i>866,058</i>	<i>825,039</i>

Overseas trade in sheepskins

EXPORTS OF SHEEPSKINS WITH WOOL: AUSTRALIA

Country of consignment	Quantity (^{'000} kg)			Value (\$ ^{'000} f.o.b.)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
France	76,733	85,763	75,473	29,886	33,573	69,103
Germany, Federal Republic of	5,086	6,304	5,886	2,641	2,752	4,425
Italy	18,394	18,651	16,486	8,488	6,922	15,686
Netherlands	1,571	2,438	2,620	609	842	1,189
Spain	862	2,999	2,649	380	1,029	1,852
United Kingdom	4,330	5,002	6,501	1,743	1,584	5,493
Yugoslavia	6,872	6,099	4,686	3,068	1,551	2,630
Other	3,683	5,035	8,615	2,454	2,688	6,112
<i>Total</i>	<i>117,532</i>	<i>132,291</i>	<i>122,916</i>	<i>49,269</i>	<i>50,941</i>	<i>106,490</i>
Number of skins (^{'000})	36,181	40,015	39,931	..	..	..

In 1972-73 a total of 3,223,000 sheepskins without wool were exported, valued at \$2,906,000. Of these, sheepskins without wool to the value of \$528,000 (18 per cent) were shipped to the United States of America, \$240,000 (8 per cent) to the United Kingdom and \$595,000 (20 per cent) to France.

Value of wool exported

The value of wool (other than wool on sheepskins) exported from Australia during 1972-73 was 19 per cent of the total value of exports of merchandise of Australian origin, while the proportion for the five years ended 1972-73 averaged 12 per cent. The values for the five years ended 1972-73, together with the principal countries to which wool was exported, are shown in the following table.

VALUE OF WOOL EXPORTS: AUSTRALIA(a)
(\$'000)

Country of consignment	1968-69	1969-70	1970-71	1971-72	1972-73
Belgium-Luxembourg	32,692	28,023	24,484	16,139	33,267
France	59,973	53,592	42,143	53,087	82,441
Germany, Federal Republic of	48,987	48,190	39,209	45,456	67,052
Italy	69,654	63,621	33,762	41,984	67,829
Japan	263,179	257,023	198,269	220,300	495,310
United Kingdom	63,832	62,732	30,055	32,401	55,869
United States of America	49,417	36,383	12,672	13,136	18,093
U.S.S.R.	40,104	43,212	35,349	29,860	70,269
Other	166,434	167,679	127,629	129,585	264,114
Total	794,272	760,455	543,572	581,948	1,154,244

(a) Excludes wool exported on sheepskins.

World sheep numbers and wool production

The following table shows particulars of the woolled sheep numbers and total production of wool, in terms of greasy, in the principal wool-producing countries of the world, together with estimates of world production of merino, crossbred, and carpet type wool for the latest available years.

In 1972-73 Australia produced 33 per cent of the world total of all types of wool. Other principal wool producers were New Zealand with 12 per cent of the world total, Argentina, 7 per cent, South Africa, 4 per cent, and United States of America, 3 per cent. Production in the U.S.S.R., China, and eastern European countries together amounted to 22 per cent.

Australia's wool clip is predominantly merino. New Zealand and Argentina produce mainly crossbred wool, while the clip of the U.S.S.R. is largely of the carpet type.

ESTIMATED WORLD WOOLLED SHEEP NUMBERS AND PRODUCTION OF WOOL

(Source for countries other than Australia: Reports published by Australian Meat Board and by the Commonwealth Secretariat, London)

Country	Sheep numbers (million)			Wool production (million kg—greasy basis)		
	1970-71	1971-72	1972-73(a)	1970-71	1971-72	1972-73(a)
Australia	178	163	140	891	880	736
New Zealand	59	61	57	334	322	322
Argentina	41	40	42	200	189	194
South Africa	32	30	33	123	113	107
United States of America	20	19	18	85	82	77
Uruguay	19	16	17	78	54	60
United Kingdom	19	19	20	46	48	47
U.S.S.R.	138	140	139	419	429	419
Other	541	534	543	579	569	603
World total	1,047	1,022	1,009	2,755	2,686	2,565

(a) Provisional.

Principal importing countries and sources of supply

The following table, prepared from information published by the Commonwealth Secretariat, furnishes, in respect of the principal importing countries, details of their imports of wool for 1973 together with the chief sources of supply. The quantities imported refer to the actual weight of wool without distinguishing between greasy and scoured, except in the case of the United States of America, where estimated clean content of wool is quoted.

PRINCIPAL WOOL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1973

(Source: Information published by the Commonwealth Secretariat, London)

(Million kg)

Importing country	Quantity imported from(a)—					Total imports
	Australia	New Zealand	Argentina	South Africa	Other countries	
Japan	261	31	5	17	2	316
United Kingdom	27	43	10	16	55	151
France	56	36	7	13	9	121
Belgium	20	15	2	..	16	53
Germany, Federal Republic of	15	11	5	11	17	59
United States of America(b) .	5	14	2	2	4	27

(a) Actual weight of greasy and scoured wool. (b) Imports are in terms of estimated clean content of greasy and scoured wool.

As a considerable transit trade exists between European countries, it must not be assumed that the whole of the imports recorded by these countries is retained for their own consumption. The countries chiefly concerned with the transit trade are the United Kingdom and Belgium.

Mutton and lamb

Sheep slaughtered

SHEEP (INCLUDING LAMBS) SLAUGHTERED

('000)

Year	Slaughterings passed for human consumption									Total slaughterings including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
1968-69	12,950	12,882	2,724	2,977	3,808	1,241	..	130	36,712	36,803
1969-70	13,309	15,745	2,937	4,232	4,534	1,297	..	158	42,213	42,384
1970-71	14,948	16,434	2,906	5,101	4,416	1,394	2	196	45,397	45,709
1971-72	16,641	20,084	3,418	5,144	6,001	1,475	4	218	52,983	53,444
1972-73	12,598	14,529	2,452	4,539	5,548	1,278	..	190	41,133	41,399

Production of mutton and lamb

PRODUCTION OF MUTTON AND LAMB (CARCASS WEIGHT)

(Tonnes)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968-69	227,540	251,952	48,982	57,738	68,801	22,812	1	2,275	680,101
1969-70	237,250	282,169	51,526	79,428	78,048	24,048	2	2,520	754,991
1970-71	262,717	312,471	50,180	91,923	78,642	26,072	33	3,211	825,249
1971-72	289,557	380,447	58,896	91,504	105,117	27,188	65	3,554	956,328
1972-73	214,041	264,159	40,570	76,263	92,916	22,528	2	2,916	713,395

Value of sheep slaughtered

GROSS VALUE OF SHEEP SLAUGHTERED(a), 1972-73

(\$'000)

N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
105,148	106,809	8,245	49,438	35,953	8,622	1	372	314,588

(a) Includes adjustment for net exports (overseas and interstate) of livestock.

GROSS VALUE OF SHEEP SLAUGHTERED: AUSTRALIA
(S'000)

1968-69	1969-70	1970-71	1971-72	1972-73
181,577	214,378	178,431	215,747	314,588

Consumption of mutton and lamb

In 1959-60 consumption of mutton and lamb, at 46.7 kg per head of population, exceeded that of beef and veal for the first time on record. Subsequently, it showed a continuous decline until 1965-66, when it fell to 37.6 kg per head. The 1972-73 figure was 33.5 kg per head or 5.8 kg per head less than beef and veal.

PRODUCTION AND DISPOSAL OF MUTTON AND LAMB
(CARCASS WEIGHT): AUSTRALIA

Year	Net change in stocks (^{'000} tonnes)	Production (^{'000} tonnes)	Exports(a) (^{'000} tonnes)	For canning (^{'000} tonnes)	Apparent consumption in Australia	
					Total (^{'000} tonnes)	Per head per year (kg)
MUTTON						
1968-69 . . .	+2	372	131	7	232	19.1
1969-70 . . .	+1	441	222	8	211	17.0
1970-71 . . .	+5	470	201	14	250	19.7
1971-72 . . .	+2	596	317	14	263	20.4
1972-73 . . .	-7	435	238	11	193	14.8
LAMB						
1968-69 . . .	+1	308	44	..	263	21.7
1969-70 . . .	-1	314	48	..	267	21.5
1970-71 . . .	+1	355	52	..	302	23.8
1971-72 . . .	+2	360	43	..	315	24.4
1972-73 . . .	-4	278	38	..	244	18.7

(a) Includes carcass equivalent of boneless mutton exported.

Consumption of meat and meat products

The apparent consumption of meat (including cured and canned meat) and edible offal per head of population in Australia is shown in the table below.

MEAT (INCLUDING CURED AND CANNED) AND EDIBLE OFFAL AVAILABLE
FOR CONSUMPTION: AUSTRALIA
(kg per head per year)

Year	Beef and veal(a)	Mutton		Pork(a)	Offal	Canned meat(b)	Carcass equivalent of meat	
		(a)	Lamb(a)				Bacon and meat and products hami(c)	(d)
1968-69 . . .	41.4	91.1	21.7	7.3	5.1	2.4	3.5	102.6
1969-70 . . .	38.8	17.0	21.5	7.6	5.2	2.4	3.7	98.1
1970-71 . . .	39.7	19.7	23.8	6.9	5.1	2.6	4.6	104.9
1971-72 . . .	39.5	20.4	24.4	6.9	5.9	2.6	5.0	107.0
1972-73 . . .	39.3	14.8	18.7	7.9	5.7	2.5	5.5	97.0

(a) Carcass weight. (b) Canned weight. (c) Cured carcass weight. (d) Includes offal.

Exports of frozen mutton and lamb

EXPORTS OF FROZEN MUTTON AND LAMB(a): AUSTRALIA

Year	Exports of frozen mutton		Exports of frozen lamb		Exports of frozen mutton and lamb	
	Quantity	Value	Quantity	Value	Quantity	Value
	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.
1968-69 . . .	76,005	32,213	29,485	13,216	105,490	45,429
1969-70 . . .	136,489	60,912	41,408	20,470	177,897	81,382
1970-71 . . .	130,910	52,192	43,623	21,878	174,533	74,070
1971-72 . . .	200,937	89,283	37,632	17,774	238,569	107,057
1972-73 . . .	156,737	100,562	31,657	17,920	188,394	118,482

(a) Actual weight shipped, not carcass equivalent.

In 1972-73 the principal buyers of Australian frozen mutton and lamb were Japan (79,999,000 kg, valued at \$52,956,000); the United States of America (15,976,000 kg, valued at \$10,701,000); Greece (13,972,000 kg, valued at \$8,161,000); and the United Kingdom (26,875,000 kg, valued at \$15,103,000).

Cattle

Objects of cattle-raising in Australia

Cattle-raising is carried out in all States, the main object in certain districts being the production of stock suitable for slaughtering purposes and in others the raising of profitable dairy herds. While dairy cattle are restricted mainly to coastal districts, beef cattle are more widely distributed in areas such as the tropical area of northern Queensland, the Northern Territory and the Kimberley district in the north of Western Australia. Increasing numbers of beef cattle are being raised in conjunction with sheep.

Distribution throughout Australia

Although cattle numbers declined after 1957 because of drought conditions and heavy slaughtering, they began to rise again in 1960 and in 1964 reached 19,055,000. Again because of drought in the eastern States, this figure declined to 17,936,000 in 1966. There has been a continuous increase in the total number of cattle in Australia since 1967. Total cattle numbers in March 1974 were 31.2 million compared with 29.1 million in 1973. Total dairy cattle numbers are currently 4.0 million.

For a graph showing the number of cattle in Australia from 1880 onwards see plate 50 page 795.

NUMBER OF CATTLE

('000)

Year ended 31 March	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1969 . . .	4,864	3,878	7,668	865	1,546	586	1,190	14	20,611
1970 . . .	5,637	4,462	7,515	1,026	1,681	646	1,179	15	22,162
1971 . . .	6,494	5,061	7,944	1,196	1,781	733	1,145	18	24,373
1972 . . .	7,410	5,457	9,022	1,495	1,975	829	1,166	20	27,373
1973 . . .	7,918	5,464	9,795	1,583	2,182	900	1,237	19	29,101

Maps showing the distribution of beef and dairy cattle in Australia have been published in previous issues of the Year Book.

Classification of cattle

CATTLE CLASSIFIED ACCORDING TO PURPOSE, AGE AND SEX: 31 MARCH 1973
(*000)

Classification	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Bulls (1 year and over) used or intended for service—									
Dairy breeds	11	31	9	4	3	3	..	..	60
Beef breeds	125	77	177	28	38	12	34	..	489
Total	136	107	186	32	41	15	34	..	549
Proportion of Aust. total (per cent)	24.7	19.5	33.8	5.8	7.5	2.7	6.2	..	100.0
Cattle used or intended for production of—									
Milk or cream for sale—									
Cows in milk and dry	465	1,284	390	141	97	155	..	1	2,523
Heifers—									
1 year and over	122	324	100	38	37	36	..	..	655
Calves (under 1 year)	96	323	73	35	5	41	..	..	601
Milk or cream for use on rural holdings—									
House cows and heifers	57	20	31	7	6	4	..	..	124
Total	740	1,951	593	221	175	236	..	2	3,902
Proportion of Aust. total (per cent)	18.9	49.8	15.1	5.6	4.5	6.0	..	..	100.0
Cattle for other purposes (a)—									
Cows and heifers (1 year and over)	3,666	1,735	4,508	706	1,013	286	742	10	12,660
Calves (under 1 year) (b)	2,286	1,098	2,262	442	541	248	222	6	7,100
Other (1 year and over) i.e. steers, bullocks, spayed cows, etc.	1,091	602	2,247	182	413	116	239	2	4,889
Total	7,043	3,435	9,017	1,330	1,967	650	1,203	17	24,650
Proportion of Aust. total (per cent)	28.6	13.9	36.6	5.4	8.0	2.6	4.9	0.1	100.0
Total cattle and calves for all purposes	7,919	5,493	9,795	1,583	2,182	900	1,237	19	29,101
Proportion of Aust. total (per cent)	27.2	18.9	33.6	5.4	7.5	3.1	4.3	0.1	100.0

(a) Mainly for meat production. (b) Includes vealers, and bull calves intended for service.

CATTLE CLASSIFIED ACCORDING TO PURPOSE, AGE AND SEX: AUSTRALIA
(*000)

Classification	31 March				
	1969	1970	1971	1972	1973
Bulls (1 year and over) used or intended for service—					
Dairy breeds	77	69	65	63	60
Beef breeds	323	363	414	462	489
Total	400	432	479	525	549
Cattle used or intended for production of—					
Milk or cream for sale—					
Cows (in milk and dry)	2,700	2,673	2,601	2,565	2,523
Heifers—					
1 year and over	769	703	687	660	655
Calves (under 1 year)	624	631	614	591	601
Milk or cream for use on rural holdings—					
House cows and heifers	165	156	145	128	124
Total	4,258	4,164	4,047	3,945	3,902
Cattle for other purposes (a)—					
Cows and heifers (1 year and over)	8,333	9,249	10,370	11,873	12,660
Calves (under 1 year) (b)	4,218	4,805	5,669	6,555	7,100
Other (1 year and over), i.e. steers, bullocks, spayed cows, etc.	3,403	3,512	3,808	4,475	4,889
Total	15,954	17,566	19,847	22,903	24,650
Total cattle and calves for all purposes	20,611	22,162	24,373	27,373	29,101

(a) Mainly for meat production. (b) Includes vealers, and bull calves intended for service.

Exports and imports of cattle

In 1972-73 the number of cattle exported was 9,522, valued at \$2,975,000 (1971-72, 3,081 valued at \$855,000). Prior to June 1958 small numbers of cattle were imported, consisting mainly of valuable animals for stud purposes. Since that date an embargo has been imposed on the import of cattle in order to prevent the introduction of the disease 'blue-tongue'.

Comparison with other countries

The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date.

CATTLE: NUMBERS IN VARIOUS COUNTRIES
(Source for countries other than Australia: F.A.O. *Production Yearbook*)
(^{'000})

Country	Year	Number
India(a)	1972	176,750
United States of America	1972	117,862
U.S.S.R.	1972	102,434
Brazil(b)	1972	98,500
China, Peoples Republic of(a)	1972	63,295
Argentina(b)	1972	54,000
Pakistan(a)	1972	20,170
Australia	1973	29,130
Ethiopia(a)	1972	26,450
Mexico	1972	25,827
France	1972	21,746
Colombia	1972	22,400
Germany, Federal Republic of	1972	13,638
United Kingdom	1972	13,483
Turkey(a)	1972	12,653
South Africa, Republic of(a)	1972	12,400

(a) F.A.O. estimate. (b) Unofficial figure.

Cattle slaughtered

CATTLE (INCLUDING CALVES) SLAUGHTERED
(^{'000})

Year	Slaughtering passed for human consumption									Total slaughterings including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
1968-69	1,417	1,514	1,823	220	366	178	80	10	5,608	5,672
1969-70	1,545	1,709	1,680	249	402	178	83	15	5,861	5,921
1970-71	1,573	1,845	1,590	264	348	162	69	19	5,870	5,896
1971-72	1,717	2,074	1,708	291	389	185	77	20	6,461	6,514
1972-73	2,349	2,560	2,005	393	478	261	78	25	8,148	8,199

Production of beef and veal

PRODUCTION OF BEEF AND VEAL (CARCASS WEIGHT)
(Tonnes)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1968-69	220,496	216,276	346,212	36,188	68,838	28,383	16,500	1,922	934,815
1969-70	277,743	253,578	314,745	40,703	73,057	31,509	16,406	2,677	1,010,418
1970-71	282,370	307,520	302,185	43,494	64,336	29,877	14,317	3,179	1,047,278
1971-72	305,705	336,503	344,814	50,069	77,290	34,795	15,418	3,295	1,167,889
1972-73	416,418	416,463	384,088	64,254	90,052	47,471	15,178	4,021	1,437,945

Value of beef cattle slaughtered

**GROSS VALUE OF BEEF CATTLE SLAUGHTERED(a)
(\$'000)**

<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
301,483	(b)246,568	(b)266,563	56,218	53,599	26,254	28,690	569	979,944

(a) Includes adjustment for net exports (overseas and interstate) of livestock. (b) Includes dairy cattle slaughtered.

**GROSS VALUE OF BEEF CATTLE SLAUGHTERED(a): AUSTRALIA
(\$'000)**

<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
514,409	589,755	610,146	685,185	979,944

(a) Includes dairy cattle slaughtered in Victoria and Queensland.

Consumption of beef and veal

The highest post-war consumption of beef and veal (including canned beef and veal) was 60.2 kg per head in 1956-57. With the buoyant overseas market for beef and the high prices ruling in Australia during the following four years, consumption per head fell substantially, and in 1960-61 amounted to only 40.1 kg. In 1972-73 consumption per head was 41.5 kg, of which 39.3 kg was carcass meat and 2.1 kg was canned meat (in terms of carcass equivalent).

A table showing the consumption of all types of meat appears on page 804.

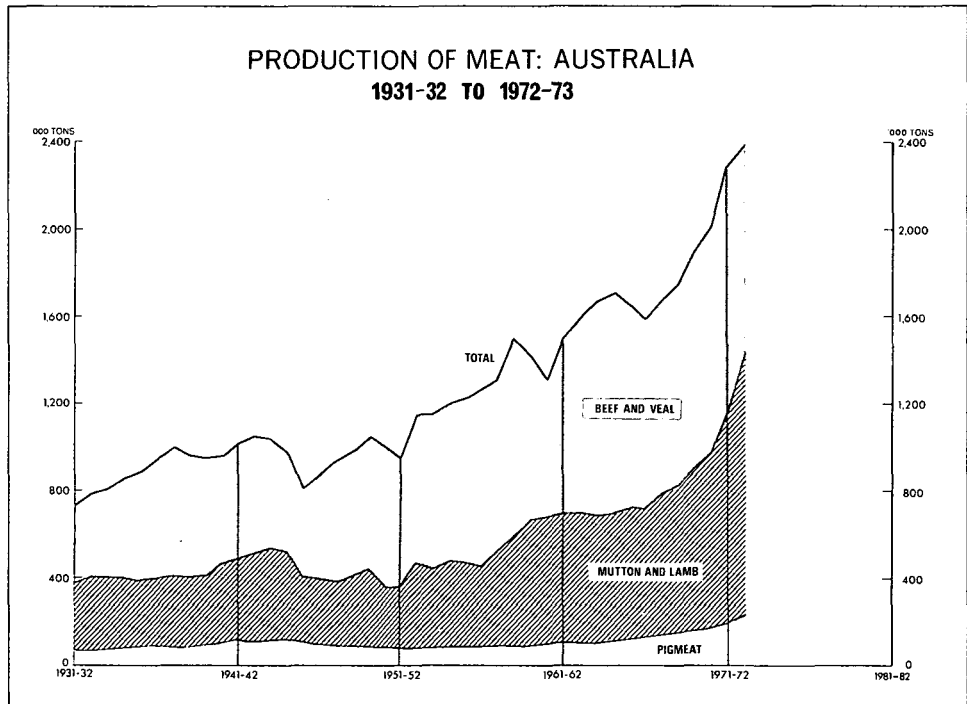


PLATE 52

PRODUCTION AND DISPOSAL OF BEEF AND VEAL (CARCASS WEIGHT) AUSTRALIA

Year	Net change in stocks	Production	Exports(a)	For canning	Apparent consumption in Australia	
					Total	Per head per year
	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	kg
1968-69 . . .	+12	935	386	34	503	41.4
1969-70 . . .	+ 5	1,010	489	35	481	38.8
1970-71 . . .	+ 2	1,047	499	45	502	39.7
1971-72 . . .	+11	1,168	594	55	508	39.5
1972-73 . . .	+ 4	1,438	872	49	514	39.3

(a) Includes carcass equivalent of boneless beef exported and all fresh and frozen meat shipped as ships' stores.

Exports of beef and veal

While beef and veal were previously shipped largely in carcass form, there has been in recent years a substantial increase in the amount of boneless beef exported. From 1958-59 to 1971-72 the quantity of boneless beef shipped exceeded that exported in carcass form. The trade in boneless beef has been developed principally with the United States of America. In 1972-73, the principal markets for Australian beef and veal exports were the United States (318,686,000 kg, valued at \$352,736,000); United Kingdom (100,144,000 kg, valued at \$100,971,000); and Japan (88,146,000 kg, valued at \$113,624).

EXPORTS OF FROZEN AND CHILLED BEEF AND VEAL(a): AUSTRALIA

Year	Exports of frozen and chilled beef				Exports of frozen veal		Exports of frozen and chilled beef and frozen veal	
	Bone-in		Boneless		Quantity	Value	Quantity	Value
	Quantity	Value	Quantity	Value				
	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.	'000 kg	\$'000 f.o.b.
1968-69 . . .	3,274	3,045	248,916	204,247	3,805	3,681	255,995	210,973
1969-70 . . .	13,376	9,068	309,168	277,858	5,354	5,200	327,898	292,126
1970-71 . . .	32,342	21,277	300,762	275,806	5,631	5,768	338,755	302,851
1971-72 . . .	17,960	13,627	373,662	364,669	9,883	10,615	401,505	388,911
1972-73 . . .	12,291	13,509	521,704	577,731	26,590	29,246	560,585	620,486

(a) Actual weight shipped, not carcass equivalent.

Exports and imports of cattle hides

The export trade in cattle hides and calfskins during 1972-73 was distributed among the main importing countries as follows; Japan, \$17,955,000, Poland, \$12,696,000, the Federal Republic of Germany, \$12,661,000, and Italy, \$4,194,000. The total quantity exported was 117,045,000 kg, valued at \$77,452,000.

The quantity of cattle hides, including calfskins, imported into Australia during the year 1972-73 amounted to 405,000 kg, valued at \$299,000. The chief source of supply was New Zealand.

The dairying industry

Australian dairy cattle have shown steady improvement in quality, as demonstrated by milk yield over the years. This is attributable to improved breeding, associated with herd recording, better feeding resulting from the use of improved pastures, and better farming methods arising from the development of modern farm machinery and the application of the results of research.

A significant development in recent years has been the shift away from on-farm separation and delivery of cream to factories, to a widespread system of refrigerated bulk milk delivery. The Australian Government is encouraging this transformation by providing interest-free loans under the Australian Dairy Adjustment Program.

The Australian dairying industry is conducted under conditions ranging from tropical to temperate and mediterranean type climates, and in general, is confined to the coastal and near coastal regions where rainfall and topography are favourable. These conditions are found in parts of the eastern, southern and south-western coasts. Inland districts include the lower north-east of Victoria, the south-western slopes of New South Wales, the fertile Darling Downs in Queensland, and the irrigated districts of the Riverina in New South Wales and northern Victoria.

The manufacturing and processing sections of the industry are well advanced technologically and certain techniques and equipment developed in Australia are now being adopted overseas. State Agricultural Departments give advice on approved methods of production and inspect animals, buildings and marketable produce, to ensure that the latest advances in technology are passed on to the farmer and that hygiene standards are maintained at a high level.

Cattle for milk production

DAIRY BREED BULLS, AND COWS AND HEIFERS USED OR INTENDED FOR PRODUCTION OF MILK OR CREAM, 31 MARCH 1969 TO 1973

At 31 March	<i>Cows and heifers used or intended for production of milk or cream for sale</i>				
	Bulls dairy breed(a)	Cows (in milk and dry)	Heifers		House cows and heifers(c)
			One year and over(b)	Under one year	
1973—					
New South Wales	11,181	464,943	121,915	95,872	57,127
Victoria	29,985	1,273,820	321,124	320,758	19,599
Queensland	9,128	389,919	99,582	72,698	30,575
South Australia	4,415	140,990	37,982	35,163	6,614
Western Australia	2,689	96,896	37,175	35,139	5,823
Tasmania	2,860	154,823	36,380	40,957	3,889
Northern Territory	11	251	86	67	94
Australian Capital Territory	20	874	330	210	260
Australia	60,289	2,522,516	654,574	600,864	123,981
1972	63,094	2,565,111	660,200	591,350	128,353
1971	64,919	2,601,138	687,104	613,985	144,567
1970	69,297	2,673,358	702,982	631,383	156,305
1969	76,617	2,700,329	768,699	624,250	164,546

(a) Used or intended for service; excludes bull calves (under 1 year) and other. (b) Springing (within 3 months of calving). (c) Kept primarily for rural holdings' own milk supply.

A map showing the distribution of dairy cattle in Australia at 31 March 1963 appears facing page 1082, Year Book No. 50.

Production of milk

The quantity of milk produced by a dairy cow can be as high as 4,500 litres a year, and varies greatly with breed, locality and season. For all dairy cows and for all seasons for Australia prior to 1916 production averaged considerably less than 1,400 litres per annum. Largely owing to an improvement in the quality of the cattle and the increased application of scientific methods the 1,400 litre average has been exceeded in each year since 1924. In the last five years an average of 2,578 litres per cow per annum has been obtained. In 1972-73 the average yield was 2,653 litres. The annual average yields per cow shown in the following table are obtained by dividing the total production of whole milk for the year ended June by the mean of the number of cows in milk and dry and house cows at 31 March of that year and of the preceding year. They are, in effect, based on the approximate number of cows which were in milk during any part of the year. The average shown is, therefore, less than that for cows which were yielding during the greater part of the year, but it may be accepted as sufficiently reliable to show the general trend.

AVERAGE MILK PRODUCTION PER COW
(litres)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
1968-69	1,786	3,020	1,390	3,220	2,484	2,943	n.a.	2,217	2,390
1969-70	2,112	3,216	1,700	3,293	2,483	2,955	718	2,720	2,642
1970-71	1,980	3,201	1,601	3,204	2,427	2,836	832	2,590	2,600
1971-72	1,838	3,209	1,668	3,094	2,480	2,853	973	2,276	2,603
1972-73	2,232	3,153	1,689	2,848	2,350	2,690	891	2,087	2,653

In the following table particulars of the production of whole milk in the various States and Territories are shown. Victoria is the principal milk-producing State, and in 1972-73 the output from that State, 4,054 million litres, represented 57 per cent of total production. Output from New South Wales in 1972-73 was 1,198 million litres (17 per cent of the total) and that of Queensland 735 million litres (10 per cent). Production in the remaining States and Territories accounted for 16 per cent.

TOTAL PRODUCTION OF WHOLE MILK
(^{'000} litres)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
1968-69	1,268,046	3,715,474	780,502	467,374	264,682	464,445	441	4,081	6,965,041
1969-70	1,413,270	4,028,362	870,126	482,958	254,005	469,216	441	4,268	7,522,642
1970-71	1,237,346	4,062,063	770,350	469,775	255,840	449,792	318	3,514	7,248,995
1971-72	1,170,819	3,973,122	767,866	457,732	254,682	451,127	318	3,201	7,078,867
1972-73	1,198,286	4,053,677	734,866	425,720	241,010	426,869	318	2,672	7,083,418

Milking machines

Statistics relating to the number of milking machines on rural holdings at 31 March from 1969 to 1973, and State details for 1973, are shown in the section Agricultural Machinery.

Value of whole milk production

GROSS VALUE OF WHOLE MILK PRODUCTION(a): 1972-73
(\$'000)

<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
105,815	237,670	54,550	25,963	18,482	22,549	70	522	465,621

(a) Includes subsidy.

GROSS VALUE OF WHOLE MILK PRODUCTION(a): AUSTRALIA
(\$'000)

<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
382,935	413,466	429,805	463,710	465,621

(a) Includes subsidy.

UTILISATION OF WHOLE MILK: 1972-73

('000 litres)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Milk used for—										
Butter	380,572	2,648,553	315,311	101,006	107,997	264,392	..	..	3,817,830
Cheese	75,567	447,588	85,909	174,297	15,723	72,342	..	..	871,426
Processed milk products	106,905	467,039	(a) {	150,417	3,579	113,712	(a) {	318	2,672	652,621
Other purposes	635,243	490,497									1,741,541
Total	1,198,286	4,053,677	734,866	425,720	241,010	426,869	318	2,672	7,083,418	

(a) Not available for publication.

In 1972-73, 53.9 per cent of the total milk supply was used for butter, 12.3 per cent for cheese, 9.2 per cent for processed milk products, and 24.6 per cent for other purposes.

PRODUCTION AND UTILISATION OF WHOLE MILK: AUSTRALIA

('000 litres)

Quantity used for—

Year	Total production	Factory butter	Factory cheese	Processed milk products(a)	Other purposes(b)
1968-69	6,965,041	4,127,293	720,941	449,814	1,667,002
1969-70	7,522,642	4,642,033	730,088	470,783	1,679,750
1970-71	7,248,995	4,212,516	746,240	586,814	1,703,417
1971-72	7,078,867	4,055,604	754,840	586,405	1,682,019
1972-73	7,083,418	3,817,830	871,426	652,621	1,741,541

(a) Quantities of milk used to produce two or more products (for example, initially as full cream milk and subsequently as skim milk) are counted once only. (b) Principally fluid milk for domestic purposes. Includes milk used for farm production of butter and cheese.

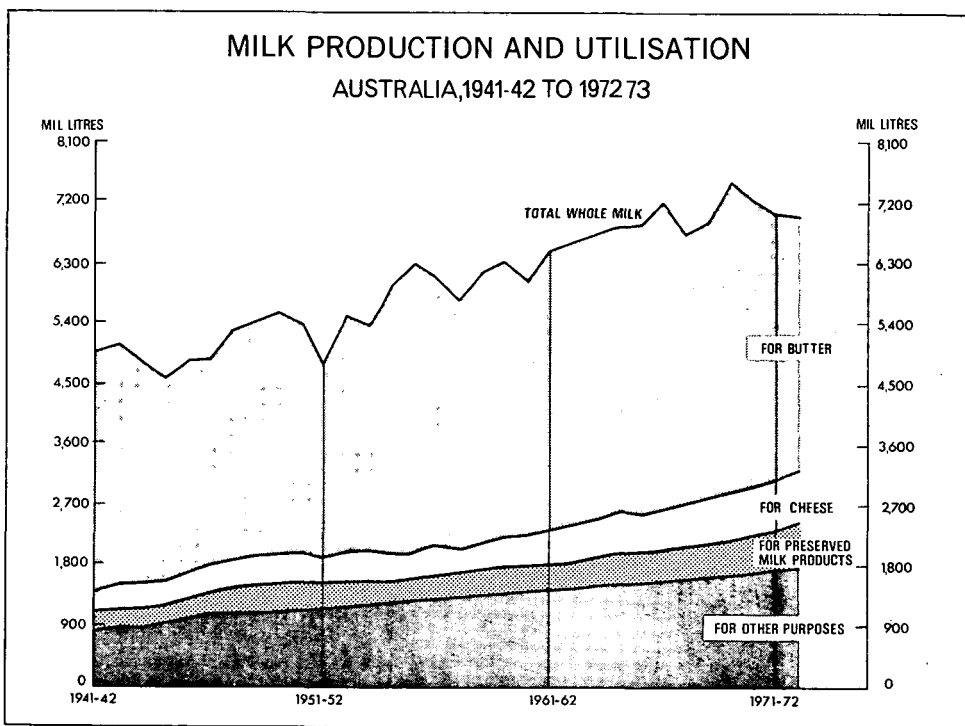


PLATE 53

Production of butter, cheese and processed milk products

In 1972-73 factories classified to the industry group Milk Products comprising ASIC classes 2121 Liquid milk and cream factories, 2122 Butter factories, 2123 Cheese factories, 2124 Ice cream and frozen confections factories, and 2125 Milk products n.e.c. factories, numbered 374 and were distributed among the States as follows: New South Wales, 95; Victoria, 135; Queensland, 58; South Australia, 40; Western Australia, 23; Tasmania, 20; Northern Territory, 1; and Australian Capital Territory, 2.

Factory production of butter in 1972-73 was 184,857,000 kg. This was 38,101,000 kg (17.1 per cent) below the record of 222,958,000 kg attained in 1969-70.

BUTTER PRODUCTION IN FACTORIES

('000 kg)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1968-69 . . .	23,665	126,392	19,466	6,483	6,291	15,860	198,157
1969-70 . . .	28,964	141,611	22,629	7,751	5,870	16,133	222,958
1970-71 . . .	21,288	135,844	18,773	6,617	5,425	15,273	203,220
1971-72 . . .	19,325	129,897	18,022	6,196	5,937	16,029	195,406
1972-73 . . .	17,541	128,029	15,857	5,161	5,349	12,921	184,857

Factory production of cheese in 1972-73 reached a record level of 93,441,000 kg, which was 12,570,000 kg (13.4 per cent) more than the previous record of 1971-72.

NON-PROCESSED CHEESE PRODUCTION IN FACTORIES

('000 kg)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1968-69 . . .	5,572	34,147	8,080	19,192	(a)	(a)	74,830
1969-70 . . .	8,571	33,440	9,295	17,827	1,774	5,396	76,303
1970-71 . . .	7,700	35,804	7,687	18,906	1,917	5,551	77,566
1971-72 . . .	7,486	38,788	8,251	18,444	1,979	5,923	80,871
1972-73 . . .	9,262	49,001	8,753	17,315	1,870	7,240	93,441

(a) Not available for publication.

FACTORY PRODUCTION OF NON-PROCESSED CHEESE BY VARIETIES: AUSTRALIA

('000 kg)

	1968-69	1969-70	1970-71	1971-72	1972-73
Fetta	492	589		567	496
Cheddar	66,277	67,878		58,415	69,977
Cottage	1,185	1,485		1,554	2,065
Edam					
Blue Vein					
Grating					
Soft	(a)	(a)			
Gouda	394	471		2,989	3,469
Other	2,753	3,103		17,346	17,438
Total cheese	74,830	76,303	77,566	80,871	93,445

(a) Not collected separately. (b) Included with 'Other'.

Processed milk products are manufactured mainly in Victoria, which produced 73 per cent of the total (in terms of whole milk equivalent) in 1972-73. New South Wales accounted for 16 per cent and the remaining States for 11 per cent.

Local consumption of butter and cheese

Following the cessation of butter rationing after the 1939-45 War, consumption per head rose to 14.2 kg in 1951-52. However, in later years it gradually declined, and in 1972-73, at 8.3 kg per head, it reached its lowest level since the war. Consumption of cheese per head has risen steadily in recent years and by 1972-73 it attained a record figure of 4.6 kg per head.

PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE: AUSTRALIA

Year	Change in stocks(a) (‘000 kg)	Factory production (‘000 kg)	Exports(b) (‘000 kg)	Apparent consumption in Australia	
				Total (‘000 kg)	Per head per year (kg)
BUTTER					
1968-69	+ 4,133	198,157	77,432	116,591	9.6
1969-70	+ 4,675	222,958	102,546	115,737	9.3
1970-71	- 6,879	203,220	93,071	117,028	9.3
1971-72	+21,708	195,406	61,656	112,041	8.7
1972-73	- 3,100	184,857	78,957	109,000	8.3
CHEESE					
1968-69	+ 5,674	74,830	25,625	43,530	3.6
1969-70	-10,214	76,303	40,914	45,604	3.7
1970-71	-10,680	77,566	36,547	51,700	4.1
1971-72	- 6,302	80,871	33,378	53,795	4.2
1972-73	+ 3,204	93,441	29,600	60,634	4.6

(a) Balance figure (includes imports).
expressed as butter.

(b) Includes ships' stores; figures for butter include ghee and butter concentrate

Average returns from butter and cheddar cheese sold

The table below shows rates realised on local, interstate and overseas sales and the average equalisation and subsidy rates in operation for the years ended June 1969 to 1974.

**BUTTER AND CHEDDAR CHEESE: RATES REALISED ON SALES,
AVERAGE EQUALISATION RATES AND RATES OF
COMMONWEALTH SUBSIDY UNDER DAIRYING INDUSTRY ACTS**

(Source: Commonwealth Dairy Produce Equalisation Committee Ltd)

(Cents per kg)

Year	Rates realised on sales				Average equalisation rate	Rate of subsidy	Rate of overall return to manufacturer
	Intrastate	Interstate	Manu- facturing	Overseas			
Butter—							
1968-69	97.92	93.57	63.02	52.49	76.60	11.84	88.44
1969-70	101.42	95.59	63.31	53.00	75.20	10.62	85.82
1970-71	101.25	96.85	63.25	51.59	76.57	18.50	95.07
1971-72	(a)	(a)	(a)	(a)	(b)83.65	(b)17.62	(b)101.27
1972-73	(a)	(a)	(a)	(a)	(b)79.23	(b)12.21	(b)91.44
1973-74	(a)	(a)	(a)	(a)	(b)75.78	(b)7.44	(b)83.22
Cheddar cheese—							
1968-69		62.01		34.89	48.89	5.65	54.54
1969-70		62.15		38.99	51.19	5.07	56.26
1970-71		63.80		36.44	52.40	8.35	60.75
1971-72		(a)		(a)	(b)61.02	8.41	69.43
1972-73		(a)		(a)	(b)64.36	5.83	70.19
1973-74		(a)		(a)	(b)63.58	(b)3.55	67.13

(a) Not yet available.

(b) Interim rates.

The distribution between factory and farm of the overall return to manufacturers for butter is shown in the following table.

**COMMERCIAL BUTTER: AVERAGE OVERALL RETURNS
AUSTRALIA**
(Source: Commonwealth Dairy Produce Equalisation Committee Ltd)
(Cents per kg)

Year	Rate of overall return to manufacturer	Estimated manufacturing cost	Return to dairy farmer
1968-69	88.44	10.47	77.96
1969-70	85.82	10.82	74.99
1970-71	95.07	11.37	83.69
1971-72	(a)101.27	(a)11.37	(a)89.89
1972-73	(a)91.44	(a)11.81	(a)79.63
1973-74	(a)83.22	(a)13.18	(a)70.86

(a) Interim rates.

Overseas trade in dairy products

The production of butter and cheese in Australia is considerably in excess of local requirements, and consequently a substantial surplus is available for export overseas. In normal circumstances the extent of this surplus is chiefly dependent upon seasonal conditions.

Exports of butter in 1972-73 amounted to 57.8 million kg, compared with 35.5 million kg in 1971-72. Exports of cheese in these years were 29.6 million kg and 33.3 million kg respectively. The principal importing country for Australian butter in 1972-73 was the United Kingdom, accounting for 55.6 per cent of total exports. In 1972-73 Japan was the principal importing country for Australian cheese with 52.0 per cent of total shipments.

All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to supervision, inspection and examination by officers appointed for that purpose. These commodities are graded according to quality, which has been fixed by regulation as follows: flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; butter at 88 to 89, cheese at 86 to 89 points, second quality; and butter at 83 to 85 points, pastry or cooking quality.

In the following table, particulars are given of the relative proportions of butter and cheese graded for export according to quality.

BULK BUTTER AND CHEESE GRADED FOR EXPORT: AUSTRALIA

Grade	Quantity ('000 kg)			Per cent		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
BUTTER(a)						
Choicest quality	58,547	32,925	48,986	87.2	88.9	93.1
First quality	6,487	3,252	2,897	9.7	8.8	5.5
Second and pastry quality(b)	2,067	863	723	3.1	2.3	1.4
Total	67,100	37,040	52,606	100.0	100.0	100.0
CHEESE						
Bulk cheddar—						
Choicest quality	10,946	11,910	10,682	30.8	34.2	30.9
First quality	12,830	8,168	7,439	36.2	23.4	21.5
Second quality(b)	1,010	751	683	2.8	2.1	2.0
Other cheese	10,737	18,573	15,750	30.2	40.3	45.6
Total	35,522	34,866	34,554	100.0	100.0	100.0

(a) Includes unsalted. (b) Includes rejected.

Exports of butter, cheese and other milk products of Australian origin are shown in the following table.

EXPORTS OF DAIRY PRODUCTS: AUSTRALIA

	Quantity ('000 kg)			Value (\$'000 f.o.b.)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Butter(a)	70,508	35,529	57,828	38,148	31,093	47,966
Cheese(b)—						
Processed(c)	8,574	9,271	8,092	6,772	8,727	8,359
Other—						
Cheddar and epicure cheddar	25,009	19,748	17,627	10,116	10,805	10,597
Parmesan (incl. parmigiano and reggiono)	70	166	91	82	178	132
Other	4,643	4,145	3,759	2,088	2,710	2,601
Total cheese	38,296	33,330	29,568	19,058	22,421	21,689
Other milk products(b)—						
Preserved, condensed, concentrated, etc.—						
Sweetened	4,044	4,239	2,042	1,234	1,521	900
Unsweetened	5,408	4,442	2,588	1,445	1,409	978
Infants' and invalids' food (essentially of milk)(d)	6,806	6,636	8,435	4,330	4,622	5,996
Casein	26,898	29,787	15,013	11,562	16,602	10,882
Dried or powdered—						
Full cream	16,976	14,864	19,487	8,544	9,400	14,352
Skim	49,824	41,884	48,030	9,184	13,879	18,700

(a) Excludes butter concentrate, ghee and ships' stores. (b) Excludes ships' stores. (c) Includes pastes and spreads (d) Includes malted milk.

Buffaloes

Buffaloes were introduced into northern Australia, at Melville Island in 1825 and the Cobourg Peninsula (Fort Wellington) in 1827 during the attempts to establish settlements. In 1838 and later years shipments of buffaloes, mainly from Timor and the other Indonesian islands, were landed at Victoria Settlement. As buffaloes were ideally suited to the tropical region of the Northern Territory they survived when the early settlements were abandoned, and multiplied rapidly, spreading as far south as Katherine. It is estimated that there are now more than 200,000 buffaloes in the Northern Territory.

Initially buffaloes were hunted for their hides. The demand for hides reached a peak in 1937 when about 17,000 buffaloes were slaughtered. Over the next 20 years the demand for hides declined considerably and there is no longer any demand for buffalo hide.

Commercial production of buffalo meat began in 1960 when a buffalo abattoir was established at Marrakai Creek, Northern Territory. The meat was used for pet food at first and in the following year slaughtering for human consumption commenced. During 1973-74, 22,724 buffaloes were slaughtered for meat production valued at \$1,607,000.

The buffalo is not a domestic animal and the Government receives a royalty payment for each beast killed. The buffalo is easily domesticated and rarely reverts to the wild state. Continuing efforts are being made to domesticate buffaloes. The numbers of domesticated buffaloes on Northern Territory rural holdings, as recorded by the annual agricultural censuses at 31 March each year were: 1970, 3,229; 1971, 4,862; 1972, 7,843; 1973, 5,199; 1974, 4,418.

During 1974, for the first time, buffaloes were exported overseas for breeding purposes, 400 being sent to Venezuela and 200 to New Guinea. Venezuela has ordered a further 200 and a contract has been negotiated with Nigeria for the supply of buffalo for breeding purposes. Australia is the only recognised supplier of breeding buffaloes because of the absence of foot and mouth disease.

The pig industry

In line with the general trend of increased specialisation common to most of the rural industries, pig farming has developed into a separate industry being no longer mainly associated with the dairy industry.

In 1971, a research scheme was established for the Australian pig industry. It is similar to those already operating for the benefit of other major rural industries such as wool, meat, wheat, dairy, tobacco, poultry and the dried fruit industries. Finance is provided from a levy of 5 cents per head on all pig slaughterings and this is matched, on a dollar for dollar basis from Australian Government sources. Funds currently available for research are \$237,400.

The research program is administered by a Pig Industry Research Committee. This Committee, which is representative of the industry and research organisations, makes recommendations to the Minister for Agriculture relating to the rate of levy and expenditure from the Pig Industry Research Trust Fund.

Distribution throughout Australia

At 31 March 1973 the number of pigs in Australia reached a record level of 3,259,397 which represented an increase of 60,714 (1.9 per cent) on the previous record at 31 March 1972 (3,198,683).

NUMBER OF PIGS

<i>At 31 March</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>Aust.(a)</i>
1969 . . .	690,226	421,655	535,496	288,019	219,787	95,363	2,488	2,253,034
1970 . . .	707,703	495,128	479,586	350,748	250,051	111,275	3,873	2,398,364
1971 . . .	796,184	519,779	491,328	389,417	277,501	112,636	3,229	2,590,195
1972 . . .	1,059,331	589,992	534,502	478,874	427,061	103,934	4,862	3,198,683
1973 . . .	1,064,678	585,227	541,827	499,461	476,316	85,114	6,662	3,259,397

(a) Incomplete; excludes Australian Capital Territory.

A long-term comparison of pig numbers is given earlier in this chapter (*see* page 793). A map showing the distribution of pigs in Australia at 31 March 1963 faces page 1083, Year Book, No. 50 and a graph showing the number of pigs in Australia from 1880 onwards appears on plate 50 of this Year Book (*see* page 795).

Pigs slaughtered

PIGS SLAUGHTERED (*000)

<i>Year</i>	<i>Slaughterings passed for human consumption</i>								<i>Total slaughterings including boiled down</i>	
	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>		
1968-69 . . .	1,008	771	800	317	263	139	3	10	3,310	3,319
1969-70 . . .	1,065	895	757	386	316	160	3	12	3,593	3,605
1970-71 . . .	1,093	941	742	436	316	171	3	16	3,717	3,729
1971-72 . . .	1,094	1,051	794	436	367	165	4	17	3,928	3,942
1972-73 . . .	1,324	1,210	964	527	538	152	5	24	4,743	4,763

Production of pigmeat, bacon and ham

PRODUCTION OF PIGMEAT (CARCASS WEIGHT) (tonnes)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
1968-69 . . .	47,055	37,170	39,799	16,194	14,229	7,137	107	471	162,162
1969-70 . . .	49,819	41,002	37,878	20,082	16,986	8,008	87	392	174,254
1970-71 . . .	50,230	45,560	37,424	22,536	16,734	8,531	104	534	181,653
1971-72 . . .	49,722	51,506	41,151	23,095	19,963	8,267	130	644	194,478
1972-73 . . .	59,644	60,486	49,760	27,482	30,360	7,389	168	884	236,173

PRODUCTION OF BACON AND HAM (CURED CARCASS WEIGHT)
(tonnes)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1968-69 . . .	15,013	10,030	15,433	4,062	5,504	1,416	51,459
1969-70 . . .	16,203	12,082	14,294	4,681	5,769	1,403	54,330
1970-71(a)—							
(bone in) . . .	10,877	4,479	5,616	1,115	1,678	915	24,681
(bone out) . . .	4,973	8,788	5,620	3,506	3,124	545	26,556
1971-72—							
(bone in) . . .	10,488	3,449	5,062	1,051	1,406	755	22,210
(bone out) . . .	5,849	10,049	7,088	3,934	3,562	767	31,249
1972-73—							
(bone in) . . .	11,611	3,176	6,548	1,252	1,446	746	24,779
(bone out) . . .	6,622	11,598	7,950	3,828	3,765	729	34,492

(a) Statistics on a bone in/bone out basis are not available prior to 1970-71.

Value of pigs slaughtered

GROSS VALUE OF PIGS SLAUGHTERED, 1972-73
(\$'000)

N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
39,884	25,490	23,886	14,739	14,725	4,821	182	3	123,730

GROSS VALUE OF PIGS SLAUGHTERED: AUSTRALIA
(\$'000)

1968-69	1969-70	1970-71	1971-72	1972-73
86,842	96,066	104,992	111,199	123,730

Consumption of pigmeat, bacon and ham

The apparent consumption of pigmeat increased from 6.9 kg per head in 1971-72 to 7.9 kg in 1972-73. A table showing the consumption of all types of meat is shown on page 804.

PRODUCTION AND DISPOSAL OF PIGMEAT (CARCASS WEIGHT)

Year	Change in stocks(a)	Production	Exports	Curing and canning	Apparent consumption (as pork or smallgoods) in Australia	
					Total	Per head per year
	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	kg
1968-69	+0.4	162.2	1.2	71.4	89.1	7.3
1969-70	-0.2	174.3	5.2	75.3	94.1	7.6
1970-71	-0.9	181.7	1.7	93.3	87.6	6.9
1971-72	+1.7	194.5	3.8	100.1	88.8	6.9
1972-73	+1.8	236.2	20.1	111.0	103.2	7.9

(a) Includes allowance for imports.

**PRODUCTION AND DISPOSAL OF BACON AND HAM (CURED CARCASS WEIGHT)
AUSTRALIA**

Year	Change in stocks	Production	Exports	Canning	Apparent consumption in Australia	
					Total	Per head per year
	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	kg
1968-69 . . . . .	..	51.5	0.2	8.2	43.1	3.5
1969-70	+0.3	54.3	0.2	7.4	46.5	3.7
1970-71 . . . . .	..	67.2	0.3	8.2	58.7	4.6
1971-72	+0.1	72.3	0.3	8.0	63.9	5.0
1972-73 . . . . .	..	80.1	0.3	8.2	71.6	5.5

A table showing the consumption of all types of meat appears on page 804.

Exports of pigs and pig products

EXPORTS OF PIGS AND PIG PRODUCTS: AUSTRALIA

		Quantity			Value (\$'000 f.o.b.)		
		1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
		Bacon and ham (including canned)	'000 kg	398	384	401	593	604	575
Lard	'000 kg	105	15	14	23	7	6
Frozen pork	'000 kg	1,727	3,803	20,104	1,425	3,144	17,117
Pigs, live	number	1,877	1,811	1,219	107	97	59

The poultry industry

Once part of the mixed farming sector, the poultry industry is now a highly specialised and distinct industry. The bulk of production is obtained from this commercial source, though many farm households and some private homes in suburban areas keep poultry to supply their domestic needs and some supplies from this source are also marketed. Because the data from this latter sector is incomplete, details of poultry numbers throughout Australia are not published. There is an increasing tendency for specialisation within the industry into hatcherymen, egg producers and broiler producers. These sectors of the industry each have separate statistics. There are also separate research schemes for the egg and meat chicken industries. Both sectors are good examples of the general movement towards specialised, large scale capital intensive production which is common to all rural industries.

Poultry numbers

POULTRY NUMBERS: AT 31 MARCH 1973

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Hens and pullets for egg production	6,506	3,833	2,195	1,558	1,166	221	78	64	15,619
Meat strain chickens (broilers)	9,437	6,524	2,693	2,111	2,335	449	1	..	23,548
Other fowls and other chickens	1,528	430	341	221	157	60	4	..	2,741
Total	17,471	10,786	5,228	3,889	3,657	729	82	64	41,908
Ducks	165	45	8	26	55	7	3	..	311
Turkeys	527	80	4	33	7	2	..	..	653

Chicken hatching and poultry slaughterings

Statistics shown in the following section have been compiled from returns supplied by commercial chicken hatcheries (i.e. those making sales of day-old chicks) and by commercial poultry slaughtering establishments. Poultry farmers hatching chicks solely for replenishing their own flocks, producers in the Northern Territory and the many very small producers are excluded from the collection. However, the statistics represent a high level of coverage in respect of commercial hatcheries and slaughtering establishments.

Poultry slaughtered for human consumption

No allowance has been made in the following figures for interstate movement of dressed poultry or changes in stocks held, and figures therefore do not necessarily represent the level of consumption in the States concerned.

Statistics for poultry slaughtered in Queensland are based on numbers slaughtered as collected by the Queensland Department of Primary Industries. From 1968-69, New South Wales slaughtering statistics include poultry slaughterings by producers in the Australian Capital Territory. Prior to that year, Australian Capital Territory slaughtering statistics were not collected.

NUMBERS OF POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION
(^{'000})

<i>Year</i>	<i>Chickens(a)</i>	<i>Other fowls(b)</i>	<i>Ducks and drakes</i>	<i>Turkeys</i>
1972-73—				
New South Wales	49,819	3,329	888	1,866
Victoria	23,101	1,919	219	174
Queensland	16,546	1,504	25	33
South Australia	11,124	438	41	17
Western Australia	11,072	657	(c)	(c)
Tasmania	1,558	83	(c)	(c)
Australia	113,220	7,930	1,224	2,108
1971-72	113,296	8,803	1,356	1,353
1970-71	103,907	7,581	1,214	1,440
1969-70	84,644	6,681	968	1,331
1968-69	75,174	6,025	1,010	916

(a) Comprises broilers, fryers and roasters. (b) Comprises hens, roosters, etc. (c) Not available for publication.

DRESSED WEIGHT OF POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION(a)
(^{'000} kg)

<i>Year</i>	<i>Chickens(b)</i>	<i>Other fowls(c)</i>	<i>Ducks and drakes</i>	<i>Turkeys</i>	<i>Total</i>
1972-73—					
New South Wales	61,812	5,081	1,535	6,725	75,152
Victoria	28,322	3,044	327	685	32,378
Queensland(d)	21,144	2,449	42	105	23,740
South Australia	12,363	677	79	71	13,190
Western Australia	12,829	1,140	(e)	(e)	14,065
Tasmania	1,850	124	(e)	(e)	2,044
Australia	138,320	12,515	2,084	7,651	160,569
1971-72	141,700	14,367	2,211	4,968	163,247
1970-71	131,046	12,383	2,068	6,020	151,518
1969-70	105,429	10,837	1,635	5,943	123,843
1968-69	93,735	9,922	1,746	3,781	109,183

(a) Dressed weight of all birds, including pieces and giblets, as reported in all States except Queensland. (b) Comprises dressed weight of broilers, fryers and roasters. (c) Comprises dressed weight of hens, roosters, etc. (d) Estimated. (e) Not available for publication.

Value of poultry slaughtered

GROSS VALUE OF POULTRY SLAUGHTERED: 1972-73
(*\$'000*)

<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
43,687	17,807	12,293	7,612	7,818	1,320	47	37	90,621

GROSS VALUE OF POULTRY SLAUGHTERED: AUSTRALIA
(*\$'000*)

<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
64,861	69,761	84,167	89,840	90,621

Chicken hatchings in commercial hatcheries

Details contained in the following tables relate to all eggs set and to chicks hatched in commercial hatcheries whether for sale as day-old chicks or for replenishment of own flocks.

NUMBER OF EGGS SET^(a) IN COMMERCIAL HATCHERIES
(*'000*)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.</i>
-------------	---------------	-------------	------------	-------------	-------------	-------------	--------------

MEAT STRAINS

1968-69 . .	51,667	20,120	18,381	6,546	(b)	(b)	109,832
1969-70 . .	60,438	21,946	20,233	8,090	(b)	(b)	124,529
1970-71 . .	76,536	29,401	23,127	11,891	(b)	(b)	158,953
1971-72 . .	73,707	35,097	21,647	13,253	(b)	(b)	161,645
1972-73 . .	77,409	36,487	23,095	12,944	(b)	(b)	168,607

EGG STRAINS

1968-69 . .	19,971	13,104	8,909	5,049	3,660	904	51,597
1969-70 . .	22,447	14,440	9,925	5,971	3,665	1,206	57,654
1970-71 . .	19,333	15,343	9,971	5,885	4,444	849	55,827
1971-72 . .	18,238	14,251	10,755	4,933	3,606	977	52,759
1972-73 . .	16,840	14,354	9,769	3,739	3,321	926	48,950

(a) Includes eggs which failed to hatch. (b) Not available for publication.

CHICKENS HATCHED^(a) IN COMMERCIAL HATCHERIES

('000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
INTENDED FOR CHICKEN MEAT—MEAT STRAINS							
(Unsexed)							
1968-69 . . .	35,563	15,546	13,765	5,053	(b)	(b)	79,538
1969-70 . . .	41,464	17,334	14,882	6,173	(b)	(b)	89,835
1970-71 . . .	54,462	22,105	16,548	9,101	(b)	(b)	114,999
1971-72 . . .	54,209	26,951	16,360	10,431	(b)	(b)	121,563
1972-73 . . .	56,246	27,746	17,418	10,131	(b)	(b)	125,822
INTENDED FOR CHICKEN MEAT—EGG STRAINS							
(Crossbred and other cockerels)(c)							
1968-69 . . .	1,191	880	457	180	66	19	2,794
1969-70 . . .	1,846	1,462	431	373	58	7	4,177
1970-71 . . .	975	1,096	464	300	52	19	2,906
1971-72 . . .	517	431	507	117	49	50	1,670
1972-73 . . .	523	489	675	103	43	18	1,853
INTENDED FOR EGG PRODUCTION—EGG STRAINS							
(Pullets)(c)							
1968-69 . . .	6,310	4,455	2,922	1,854	1,246	299	17,085
1969-70 . . .	7,110	4,977	3,169	2,136	1,314	408	19,115
1970-71 . . .	6,325	5,350	3,176	2,125	1,560	268	18,803
1971-72 . . .	5,889	4,861	3,484	1,876	1,268	302	17,680
1972-73 . . .	5,129	4,875	3,126	1,409	1,223	317	16,078

(a) Excludes chicks destroyed. (b) Not available for publication. (c) Includes (for States other than Queensland) a proportion of unsexed egg strain chicks.

Recorded production of eggs and egg products

Statistics of the production and disposal of eggs in Australia are recorded by the Australian Egg Board and the Egg Marketing Board of New South Wales. Details of production as recorded by these authorities are shown in the following table.

SHELL EGGS: PRODUCTION^(a) RECORDED BY EGG BOARDS

('000 dozen)

State	1968-69	1969-70	1970-71	1971-72	1972-73
New South Wales ^(b)	76,062	82,021	89,663	91,100	87,782
Victoria	41,147	47,613	53,339	55,518	50,940
Queensland	20,854	23,837	25,305	25,031	26,985
South Australia	15,692	16,655	19,440	20,515	18,769
Western Australia	11,491	12,716	14,501	16,897	14,346
Tasmania	n.a.	n.a.	n.a.	n.a.	n.a.
Total(c)	165,247	182,842	202,249	209,061	198,822

(a) Receipts from consignors and sales by producer agents. (b) Includes Australian Capital Territory. (c) Excludes Tasmania.

Value of egg production

GROSS VALUE OF EGG PRODUCTION: 1972-73

(\$'000)

<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
45,344	31,292	16,727	6,662	7,251	4,502	547	994	113,319

GROSS VALUE OF EGG PRODUCTION: AUSTRALIA

(\$'000)

<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
111,304	114,638	111,155	110,874	113,319

Egg pulp production

Particulars of the production of egg pulp and powder as recorded by the Egg Marketing Board for the State of New South Wales and by the Australian Egg Board for the other States are shown in the following table.

EGG PULP AND POWDER: PRODUCTION RECORDED BY EGG BOARDS

('000 kg)

<i>State</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
<i>New South Wales</i>	7,117	9,983	12,922	10,331	5,517
<i>Victoria</i>	4,578	6,319	8,334	9,122	2,475
<i>Queensland</i>	2,399	3,623	3,439	2,754	3,041
<i>South Australia</i>	2,436	2,755	3,691	4,176	2,021
<i>Western Australia</i>	685	891	1,353	2,442	1,085
<i>Tasmania</i>	n.a.	n.a.	n.a.	n.a.	n.a.
Total(a)	17,215	23,571	29,738	28,825	14,139

(a) Excludes Tasmania.

In addition to egg pulp and powder, production was also recorded for liquid egg whites and liquid egg yolks. Output in 1972-73 amounted to 6,637,000 kg and 5,212,000 kg respectively, compared with 5,665,000 kg and 4,086,000 kg respectively, in the previous year. These figures exclude small quantities produced in Tasmania for which details are not available.

Consumption of eggs and egg products

Because of the operation of producers outside the control of the Egg Boards and the extent of 'back-yard' poultry-keeping, for which no statistics are collected, figures relating to total egg production must be accepted with some reserve. The production shown in the following table, together with details of exports and consumption, is based upon the records of Egg Boards for production from areas under their control, plus estimates of production from uncontrolled areas and from 'back-yard' poultry-keepers.

ESTIMATED PRODUCTION AND DISPOSAL OF EGGS IN SHELL: AUSTRALIA

Year	Change in stocks	Estimated total production	Exports(a)	For drying and pulping(b)	Apparent consumption in Australia	
					Total	Per head per year
	mil. doz	mil. doz	mil. doz	mil. doz	mil. doz	doz
1968-69	-0.1	257.4	7.6	41.0	208.9	17.2
1969-70 . . . . .	..	272.4	5.1	53.6	213.6	17.2
1970-71	+0.2	287.0	5.1	64.8	216.9	17.2
1971-72	+0.4	296.1	6.9	67.9	220.9	17.2
1972-73	-0.1	283.9	6.5	52.8	224.6	17.2

(a) Includes ships' stores. (b) Includes wastage.

Details of the annual consumption of shell eggs, egg pulp and powder and total shell egg equivalent per head of population are shown in the following table.

SUPPLIES OF EGGS AND EGG PRODUCTS AVAILABLE FOR CONSUMPTION: AUSTRALIA

(Per head per year)

Year	Eggs in shell	Egg pulp and powder(a)	Total	
			Number	Weight(b)
	number	number		kg
1968-69	206	14	220	12.5
1969-70	206	14	220	12.5
1970-71	206	14	220	12.5
1971-72	206	12	218	12.3
1972-73	206	12	218	12.4

(a) In terms of number of eggs in shell. (b) The average weight of an egg in Australia is taken as 56.7g.

Overseas trade in poultry products

Australian exports of shell eggs in 1972-73 amounted to 5,552,000 dozen compared with 5,909,000 dozen in 1971-72. The main outlets for Australian eggs in 1972-73 were Hong Kong (2,031,000 dozen), Kuwait (773,000 dozen), the Union of Arab Emirates (661,000 dozen), and Bahrain (620,000 dozen).

EXPORTS OF POULTRY PRODUCTS: AUSTRALIA

	Quantity	Value (\$'000 f.o.b.)					
		1970-71	1971-72	1972-73			
Eggs in shell	'000 doz	3,990	5,909	5,552	1,038	1,455	1,470
Eggs not in shell—							
In liquid form	'000 kg	19,563	16,581	23,728	7,052	6,261	9,578
Dry	'000 kg	382	303	282	357	380	458
Frozen poultry	'000 kg	2,344	3,137	3,963	1,504	2,077	2,483
Poultry, live(a)	number	369,821	369,589	379,952	161	173	214

(a) Includes day-old chicks.

Imports of canned poultry in 1972-73 amounted to 62,000 kg, valued at \$67,000, compared with 273,000 kg, valued at \$76,000, in 1971-72.

Horses

The number of horses on rural holdings in Australia reached a peak of 2,527,000 in 1919. Since then it has declined, because of mechanisation of transport and farming, and the number recorded at 31 March 1970 was 456,000. From 1970 particulars of horses will be collected only at decennial intervals in accordance with the world census by FAO.

A graph showing the number of horses in Australia since 1880 appears on plate 50, page 795.

Horse numbers

NUMBER OF HORSES: 1930 TO 1970 (‘000)

31 March—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1930 . . .	535	393	500	189	160	34	34	1	1,846
1940 . . .	535	326	445	190	139	30	33	1	1,699
1950 . . .	342	200	317	83	59	21	33	1	1,057
1960 . . .	204	81	234	30	41	11	38	1	640
1970 . . .	136	53	173	16	29	6	41	1	456

Overseas trade in horses

Exports of Australian-bred horses in 1972-73 numbered 802, valued at \$2,253,000, made up of horses for breeding (158 valued at \$332,000), horses for racing (545 valued at \$1,856,000, shipped principally to Singapore, Hong Kong, the United States of America and New Zealand) and horses for other purposes (99 valued at \$65,000). Horses imported into Australia in 1972-73 (1,148 valued at \$5,312,000) were mainly from New Zealand and the United Kingdom.

Miscellaneous livestock products

Tallow

Details of tallow consumption are collected from the principal factories using tallow. Recorded usage of inedible tallow in factories for the years 1968-69, 1969-70 and 1971-72 was as follows; for soap-making: 1968-69, 33,912,612 kg; 1969-70, 33,062,868 kg; 1971-72, 35,770,000 kg; for products other than soap: 1968-69, 11,210,475 kg; 1969-70, 11,778,196 kg; 1971-72, 12,333,000 kg. Particulars for 1970-71 were not collected. Figures for 1972-73 are not yet available. Details of edible tallow usage in factories are not available.

Particulars of exports of edible and inedible tallow of Australian origin are shown in the following table for the five years 1968-69 to 1972-73.

TALLOW: EXPORTS, AUSTRALIA, 1968-69 TO 1972-73 (tonnes)

	1968-69	1969-70	1970-71	1971-72	1972-73
Edible	10,254	17,679	17,727	17,011	17,329
Inedible	103,409	153,396	139,151	199,675	179,942
Total	113,663	171,075	156,878	216,686	197,271

Overseas trade in hides and skins

The value of cattle and horse hides, sheep and other skins, and skin pieces sent overseas during 1972-73 amounted to \$192,098,000, compared with a total of \$82,167,000 in 1971-72 and \$73,574,000 in 1970-71.

The bee-farming industry

Production of honey and bees-wax

Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming. A feature of the industry is that it consists mainly of itinerant apiarists operating on a large scale with mobile equipment. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to provide a continuous supply of nectar from flora suitable for their bees. Production of honey in 1973-74 amounted to 21,189,000 kg (51.8 kg per productive hive) compared with 18,083,000 kg (45.8 kg per productive hive) in 1972-73. Bees-wax produced in 1973-74 was 322,000 kg compared with 271,000 kg in the previous year.

In the following tables, statistics for each State are confined to apiarists with five or more hives except in New South Wales where details relate to bee-keepers with six or more hives.

BEE-FARMING: AUSTRALIA

Season	Number of apiarists(a)	Beehives			Honey produced		Bees-wax produced
		Productive	Unproductive	Total	Quantity	Average production per productive beehive	
						'000	'000	'000	'000 kg	kg	'000 kg
1973-74—							
New South Wales	2,209	160	63	222	8,683	54.4	126
Victoria	1,160	74	24	99	3,161	42.7	47
Queensland	907	45	21	66	1,768	39.3	30
South Australia	894	85	17	102	4,650	54.7	76
Western Australia	341	33	6	40	2,415	72.2	36
Tasmania	234	11	3	14	487	43.7	7
Australian Capital Territory	34	1	..	1	25	26.8	..
Australia	5,779	409	134	544	21,189	51.8	322
1969-70.	5,518	368	114	482	22,259	60.5	307
1970-71.	5,759	376	118	493	19,126	50.9	266
1971-72.	5,803	384	139	524	20,240	52.7	264
1972-73.	5,926	395	133	528	18,083	45.8	271
1973-74.	5,779	409	134	544	21,189	51.8	322

(a) See comments on coverage (in terms of bee-keepers included) above.

Value of honey and bees-wax

GROSS VALUE OF HONEY AND BEES-WAX 1972-73

(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Total
Honey	2,377	2,077	790	1,656	1,009	213	8	8,130
Bees-wax	105	65	25	56	36	7	..	294

GROSS VALUE OF HONEY AND BEES-WAX: AUSTRALIA

(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
Honey	2,670	4,427	4,362	6,136	8,130
Bees-wax	259	397	337	320	294

Overseas trade in honey and bees-wax

EXPORTS OF HONEY: AUSTRALIA
(Australian produce only)

Country of consignment	Quantity ('000 kg)			Value (\$A'000 f.o.b.)		
	1971-72	1972-73	1973-74	1971-72	1972-73	1973-74
Belgium-Luxembourg	58	3	116	18	1	77
Denmark	228	187	55	77	97	36
Germany, Federal Republic of	681	317	140	226	197	93
Hong Kong	28	24	38	20	18	39
Indonesia	48	48	51	42	9	50
Japan	1,398	1,221	551	645	733	471
Kuwait	60	61	77	50	43	87
Malaysia	195	255	313	129	173	304
Netherlands	187	55	27	65	34	18
Saudi Arabia	112	67	91	100	46	106
Singapore	155	140	256	116	109	256
Union of Arab Emirates	3	14	31	3	15	34
United Kingdom	4,551	5,089	2,635	1,590	2,898	1,684
United States of America	471	190	76	192	88	37
Other countries	659	294	256	360	261	229
Total	8,834	7,965	4,713	3,633	4,722	3,521

Imports of honey amounted to 49,122 kg, valued at \$37,427 in 1971-72; 52,511 kg, valued at \$46,014 in 1972-73, and 40,421 kg, valued at \$49,564 in 1973-74.

EXPORTS OF BEES-WAX: AUSTRALIA
(Australian produce only)

Country of consignment	Quantity ('000 kg)			Value (\$A'000 f.o.b.)		
	1971-72	1972-73	1973-74	1971-72	1972-73	1973-74
France . . . . .	..	..	14	..	..	24
Germany, Federal Republic of . . . . .	..	..	29	..	..	33
Japan	51	11	34	72	15	44
United Kingdom	45	25	131	62	30	212
United States of America . . . . .	..	..	21	..	..	21
Other countries . . . . .	..	5	11	1	11	22
Total	97	41	240	135	56	356

Imports of bees-wax amounted to 14,460 kg, valued at \$27,479 in 1971-72; 6,621 kg, valued at \$11,049 in 1972-73, and 13,744 kg, valued at \$24,777 in 1973-74.

Honey levy

A levy is imposed under the *Honey Levy Act* 1962-1965 on domestic sales of honey for the purpose of financing the operations of the Australian Honey Board. The current rate of levy which becomes effective on 1 October 1975 is 1.3 cents per kg; it can be increased by regulation to a maximum of 2.2 cents per kilogram.

In April 1974 an export charge of 0.3 cents per kg was introduced under the *Honey Export Charge Act* 1973 to provide necessary additional finance for the Honey Board to regulate Australian honey exports and undertake associated promotional and research activities. This levy may be increased by regulation to a maximum of 1 cent per kg.

Collections of the domestic sales levy have amounted to \$121,000 and \$129,000 in 1972-73 and 1973-74 respectively. Collections of the export levy in its first three months of operation were \$1,500. The sum made available for research (\$5,000 per annum in recent years) is matched by the Australian Government with funds from the Special Research Grant.

RURAL IMPROVEMENTS, CONSERVATION AND CONSUMPTION OF FODDER

The soils of Australia

Year Book No. 52 contains an article (pages 873-9) on the soils of Australia which deals with the following matters: nature and development of Australian soils, including the agricultural development of soils, and types of Australian soils. A soil map of Australia and illustrations are included on plates 47 to 51 of Year Book No. 52.

Soil improvement and conservation

Fertilisers

The bulk of Australia's requirements of nitrogenous and phosphatic fertilisers is supplied by the domestic industry. Requirements of potassic fertilisers are primarily imported. Production of nitrogenous fertilisers is based on both Australian natural and refinery gas and imported naphtha feedstocks. Production of phosphatic fertilisers is dependent upon imported phosphate rock.

As a result of widespread phosphate deficiency in Australian soils, phosphatic fertilisers account for a large proportion of usage both on crops and pastures. During 1972-73 usage of nitrogen, phosphorus and potassium in elemental terms was in the ratio of approximately 2:6:1.

Principal crops and pastures fertilised, etc.

Information regarding the principal crop and pasture areas treated with artificial fertilisers, and the quantity of artificial fertilisers (superphosphate, nitrates, etc.) used is given in the following tables.

**PRINCIPAL CROPS AND PASTURES ARTIFICIALLY FERTILISED, AREA FERTILISED
TYPE AND QUANTITY(a) USED, 1972-73**

<i>Crops and pastures</i>		<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Australia</i>
Sown and native pastures—										
Area fertilised . . .	hectares	3,363,323	4,200,007	218,486	1,779,847	5,048,302	599,266	35,453	11,570	15,256,254
Type of fertiliser used—										
Superphosphate . . .	tonnes	493,040	644,436	50,491	249,862	679,131	110,563	4,030	1,519	2,233,072
Nitrogenous . . .	"	11,138	12,231	7,399	1,337	8,796	4,046	36	36	45,019
Other(b) . . .	"	6,881	108,906	3,883	5,408	35,842	15,538	9	..	176,467
Lucerne—										
Area fertilised . . .	hectares	139,454	77,118	12,193	253,303	10,328	3,725	23	811	496,955
Type of fertiliser used—										
Superphosphate . . .	tonnes	21,493	14,689	2,821	38,059	2,087	577	22	139	79,887
Nitrogenous . . .	"	296	117	437	244	59	17	..	..	1,170
Other(b) . . .	"	444	1,403	119	1,282	368	582	..	17	4,215
Wheat—										
Area fertilised . . .	hectares	1,674,803	959,095	54,992	932,006	2,445,769	4,258	..	219	6,071,142
Type of fertiliser used—										
Superphosphate . . .	tonnes	168,112	112,594	2,189	114,428	289,857	845	..	27	688,052
Nitrogenous . . .	"	3,555	2,714	1,730	1,423	22,955	6	..	..	32,383
Other(b) . . .	"	5,082	1,359	163	2,870	10,080	36	..	..	19,590
Oats, barley and rye—										
Area fertilised . . .	hectares	633,460	519,411	64,317	882,918	1,203,373	31,994	..	413	3,335,886
Type of fertiliser used—										
Superphosphate . . .	tonnes	69,698	60,680	4,811	105,931	146,789	6,785	..	55	394,749
Nitrogenous . . .	"	4,261	1,059	3,344	1,149	6,968	160	..	2	16,943
Other(b) . . .	"	3,558	1,321	749	2,324	3,955	528	..	12	12,447
Other cereals—										
Area fertilised . . .	hectares	84,417	4,233	95,484	161	3,833	52	11,196	172	199,548
Type of fertiliser used—										
Superphosphate . . .	tonnes	6,537	643	4,209	28	202	4	4,941	27	16,591
Nitrogenous . . .	"	7,254	75	7,829	..	2,374	..	2,024	5	19,561
Other(b) . . .	"	2,488	199	16,49	..	45	14	54	1	4,450
Sugar cane—										
Area fertilised . . .	hectares	8,920	..	230,752	..	..	..	..	..	239,672
Type of fertiliser used—										
Superphosphate . . .	tonnes	448	..	19,382	..	..	..	..	..	19,830
Nitrogenous . . .	"	4,254	..	104,598	..	..	..	..	..	108,852
Other(b) . . .	"	725	..	74,402	..	..	..	..	..	75,127
Vegetables for human consumption—										
Area fertilised . . .	hectares	17,074	21,784	16,190	8,401	4,842	9,087	153	45	77,576
Type of fertiliser used—										
Superphosphate . . .	tonnes	6,240	8,128	1,616	3,550	3,502	1,977	63	15	25,091
Nitrogenous . . .	"	2,231	1,996	3,170	1,581	2,562	310	15	15	11,880
Other(b) . . .	"	7,787	14,228	6,905	4,555	7,826	5,569	114	32	47,016
Fruit—										
Area fertilised . . .	hectares	22,449	18,855	14,934	11,843	6,324	5,306	33	6	79,750
Type of fertiliser used—										
Superphosphate . . .	tonnes	4,607	4,330	1,340	4,361	2,165	1,205	4	..	18,012
Nitrogenous . . .	"	4,420	4,812	5,624	2,566	1,535	795	29	..	19,781
Other(b) . . .	"	12,307	4,715	10,008	2,789	2,710	2,919	39	1	35,488
Grapevines—										
Area fertilised . . .	hectares	7,423	8,414	964	16,992	1,758	..	..	..	35,551
Type of fertiliser used—										
Superphosphate . . .	tonnes	1,793	1,614	74	5,195	385	..	..	..	9,061
Nitrogenous . . .	"	1,099	1,117	55	1,287	184	..	..	..	3,742
Other (b) . . .	"	1,131	864	342	2,209	528	..	..	..	5,074
All other crops—										
Area fertilised . . .	hectares	98,464	32,708	48,099	11,990	80,176	11,612	338	10	283,397
Type of fertiliser used—										
Superphosphate . . .	tonnes	8,072	6,431	4,127	1,770	14,328	2,637	73	1	37,439
Nitrogenous . . .	"	2,020	442	4,413	77	3,173	425	22	..	10,572
Other(b) . . .	"	2,193	3,164	4,973	116	1,076	1,019	..	..	12,541
Total—										
Area fertilised . . .	hectares	6,049,787	5,841,625	756,411	3,897,461	8,804,705	665,300	47,196	13,246	26,075,731
Type of fertiliser used—										
Superphosphate . . .	tonnes	780,040	853,545	91,060	523,184	1,138,446	124,593	9,133	1,783	3,521,784
Nitrogenous . . .	"	40,528	24,563	138,599	9,664	48,606	5,759	2,126	58	269,903
Other(b) . . .	"	(c)42,596	136,159	103,193	21,553	62,430	26,205	216	63	392,415

(a) Includes quantities of "double" and "triple" strength superphosphate converted to single strength equivalent. (b) Includes mixed and compounded fertilisers. (c) In addition, 5,959,000 kg "N" of Anhydrous Ammonia (82% "N") was applied.

**PRINCIPAL CROPS AND PASTURES: ARTIFICIALLY FERTILISED, AREA FERTILISED
TYPE AND QUANTITY USED, AUSTRALIA**

<i>Crops and pastures</i>	1968-69	1969-70	1970-71	1971-72	1972-73
AREA FERTILISED					
(Hectares)					
Sown and native pastures	14,672,498	16,210,924	14,938,139	13,296,223	15,256,254
Lucerne					
Wheat	8,615,724	7,623,381	5,374,724	5,619,254	6,071,142
Oats, barley and rye	3,318,981	3,380,701	3,993,892	3,818,567	3,335,886
Other cereals					
Sugar cane	229,386	228,444	228,404	234,301	239,672
Vegetables for human consumption	96,177	95,628	84,535	87,609	77,576
Fruit	122,157	123,536	125,235	82,493	79,750
Grapevines					
All other crops	465,420	469,975	541,319	301,525	283,397
Total	27,520,343	28,132,589	25,286,248	24,148,704	26,075,731

SUPERPHOSPHATE USED					
(Tonnes)					
Sown and native pastures	2,139,226	2,352,502	2,161,089	1,895,410	2,233,072
Lucerne					
Wheat	979,651	867,445	599,599	623,299	688,052
Oats, barley and rye	397,792	412,880	463,099	443,240	394,749
Other cereals					
Sugar cane	14,098	18,089	27,854	18,544	19,830
Vegetables for human consumption	29,614	30,705	27,855	26,679	25,091
Fruit	22,243	27,179	27,668	17,758	18,012
Grapevines					
All other crops	71,148	71,670	87,442	36,301	37,439
Total	3,653,772	3,780,470	3,394,606	3,160,244	3,521,784

NITROGENOUS FERTILISERS USED					
(Tonnes)					
Sown and native pastures	(a)	(a)	31,800	44,248	45,019
Lucerne					
Wheat	(a)	(a)	31,176	30,021	32,383
Oats, barley and rye	(a)	(a)	33,486	19,018	16,943
Other cereals					
Sugar cane	(a)	(a)	80,072	96,197	108,852
Vegetables for human consumption	(a)	(a)	11,336	13,624	11,880
Fruit	(a)	(a)	24,204	19,184	19,781
Grapevines					
All other crops	(a)	(a)	9,623	3,642	3,742
Total	(a)	(a)	221,697	253,924	269,903

OTHER ARTIFICIAL FERTILISERS USED(b)					
(Tonnes)					
	(c)	(c)			
Sown and native pastures	124,196	139,023	131,687	151,013	176,467
Lucerne					
Wheat	92,749	57,167	36,895	18,085	19,590
Oats, barley and rye	31,879	31,414	34,455	14,394	12,447
Other cereals					
Sugar cane	73,048	71,603	68,898	69,985	75,127
Vegetables for human consumption	66,728	60,094	56,131	49,619	47,016
Fruit	63,849	62,228	48,782	34,985	35,488
Grapevines					
All other crops	24,519	22,823	21,193	13,804	12,541
Total	476,968	444,352	398,041	365,041	392,415

(a) Not available, included in 'other artificial fertilisers'. (b) Includes mixed and compounded fertilisers. (c) Includes nitrogenous fertiliser.

Imports and exports of fertilisers

The chief sources of Australia's supplies of natural phosphate are Nauru, Christmas Island (Indian Ocean), Gilbert and Ellice Islands and Morocco. Sodium nitrate is obtained chiefly from Chile and the U.S.A.

IMPORTS OF FERTILISERS: AUSTRALIA

Description	1968-69		1969-70		1970-71		1971-72		1972-73	
	'000 kg	\$'000	'000 kg	\$'000	'000 kg	\$'000	'000 kg	\$'000	'000 kg	\$'000
Fertilisers, crude—										
Natural sodium nitrate	3,907	182	4,588	305	3,242	185	3,159	212	3,572	225
Natural phosphates, whether or not ground	3,227,539	31,606	2,691,825	28,109	2,107,482	22,174	1,654,352	18,157	2,281,922	22,647
Natural potassic salts, crude . . . . .	..	..	..	..	5,203	152	..	..	..	..
Fertilisers, manufactured—										
Mineral or chemical fertilisers, nitrogenous—										
Ammonium nitrate	20,869	1,317	16,617	1,201	14,648	954	2,695	164	9,185	458
Ammonium sulphate	70,768	1,707	12,124	465	453	20	375	13	144	7
Calcium ammonium nitrate	19,782	789	3,611	149	1,042	40	1,097	41	1,032	48
Sodium nitrate	1,318	73	508	22	2,101	110	1,035	66	805	116
Urea containing in the dry state more than 45% by weight of nitrogen	145,802	7,423	7,989	433	12,669	626	6,984	435	1,302	76
Other	691	65	631	40	948	58	564	32	757	47
Mineral or chemical fertilisers, phosphatic—										
Basic slag . . . . .	..	..	..	..	..	..	..	..	..	..
Other (including super-phosphates)	14,246	406	1,649	97	3,141	132	2,433	218	2,044	123
Mineral or chemical fertilisers, potassic—										
Potassium chloride	120,457	2,749	111,946	2,684	136,138	4,045	130,431	3,350	156,184	4,254
Potassium sulphate	13,190	603	17,358	748	17,131	748	15,482	768	9,101	438
Other	3,451	105	5,971	152	2,468	66	891	54	128	8
Fertilisers, n.e.s.										
In the form of tablets, lozenges and similar prepared forms or in packs of gross weight not exceeding 10 kg	28	31	28	27	39	54	49	53	29	30
Other—										
Sodium nitrate mixed or combined with potassium nitrate	195	12	190	13	234	15	118	9	100	9
N.P.K. complete fertilisers	31,033	1,795	7,253	462	7,439	443	14,850	985	5,491	439
Mixed or composite fertilisers	5,016	316	7,902	476	375	22	44	10	74	17
Blood and bone	173	12	..	..	..	..	..	..	..	..
Other	30,041	1,607	10,116	673	952	117	320	68	577	104

Exports of fertilisers (manufactured locally) amounted to 88,000 tonnes valued at \$1,803,000 in 1972-73 compared with 51,000 tonnes valued at \$1,311,000 in 1971-72.

Pasture improvement

An article on pasture improvement, which includes notes on indigenous and introduced species of grasses and which traces the development of pasture research in Australia, appears on pages 1001-2 of Year Book No. 49.

Soil conservation

Year Book No. 49 contains an article (pages 1003-4) on soil conservation which deals with the following matters: land use and soil erosion, agents of erosion, prevention and control, and the activities of various Federal and State authorities which promote and co-ordinate research into the problems of soil erosion and the initiation of preventive measures.

Aerial Agriculture

Extensive use is made of aircraft for top-dressing and seeding, for spraying and dusting of crops and pastures, and for pest and vermin extermination.

For 1956-57 (the first year for which data are available) the total area treated was 593,000 hectares; in 1972-73 the total was 4,788,000 hectares. The following table shows details of area treated and materials used for each State for years ended 31 March.

AERIAL AGRICULTURE

Year ended 31 March	Area topdressed and seeded	Area sprayed	Total area treated(a)	Materials used		Total flying time
	'000 hectares	'000 hectares	'000 hectares	Super- phosphate tonnes	Seed '000 kg	
1973—						
New South Wales(b)	2,102	679	2,803	263,950	1,056	47,398
Victoria	559	82	659	86,505	66	15,197
Queensland(c)	(d)	202	488	(d)	503	11,534
South Australia	(d)	70	187	19,099	(d)	3,598
Western Australia	171	(d)	(d)	26,104	(d)	(d)
Tasmania	(d)	(d)	(d)	(d)	(d)	(d)
Australia	3,359	1,355	4,788	446,190	1,646	89,432
1972	2,795	1,357	4,291	335,374	1,991	75,620
1971	3,304	1,124	4,581	417,366	1,111	83,692
1970	4,156	1,507	6,017	599,795	1,295	102,619
1969	3,834	1,853	5,834	433,596	1,871	99,639

(a) Includes other types of treatment (rabbit baiting, etc.). (b) Includes details for the Australian Capital Territory.
(c) Includes details for the Northern Territory. (d) Not available for publication.

Irrigation on rural holdings

Details of the principal crops and the area under irrigation are given in Chapter 23, Water Resources.

Farm stocks of major cereal grains, silage and hay

FARM STOCKS OF CEREAL GRAINS

(Tonnes)

State	At 31 March—				
	1969	1970	1971	1972	1973
BARLEY					
New South Wales	(a)	(a)	(a)	150,938	98,970
Victoria	(b)	53,462	62,994	91,669	86,999
Queensland	(b)	43,024	21,060	48,922	27,041
South Australia	115,588	121,206	133,017	189,501	156,444
Western Australia	(c)32,770	94,590	102,056	144,528	189,226
Tasmania	(b)	8,175	10,004	10,447	10,758
Northern Territory	(b)	(b)	(b)	(a)	(a)
Australian Capital Territory	(b)	(b)	(b)	(a)	(a)
Australia	n.a.	n.a.	n.a.	(d)636,005	(d)569,438
OATS					
New South Wales	499,293	555,927	611,889	415,855	260,918
Victoria	228,452	347,038	289,358	263,315	259,058
Queensland	(b)	16,890	13,516	14,653	9,592
South Australia	117,469	112,935	115,533	138,857	85,836
Western Australia	(c)175,707	190,076	209,830	285,427	169,075
Tasmania	(b)	8,587	8,176	7,138	12,778
Northern Territory	(b)	(b)	(b)	(a)	(a)
Australian Capital Territory	425	629	565	411	262
Australia	n.a.	(d)1,232,082	(d)1,248,867	(d)1,125,656	(d)797,519
WHEAT					
New South Wales	296,665	344,216	301,285	296,328	325,987
Victoria	130,017	321,058	137,537	169,455	157,904
Queensland	(b)	31,477	20,535	26,641	27,773
South Australia	120,774	118,854	105,288	105,489	122,119
Western Australia	217,426	205,012	279,158	214,055	199,481
Tasmania	(b)	3,077	2,563	2,534	4,413
Northern Territory	(b)	(b)	(b)	(a)	(a)
Australian Capital Territory	405	925	649	348	540
Australia	n.a.	(d)1,024,619	(d)847,015	(d)814,850	(d)838,217

(a) Not available separately. (b) Not collected. (c) Feed only. (d) Incomplete; see footnotes to individual States.

FARM STOCKS OF SILAGE

(Tonnes)

State	At 31 March—				
	1969	1970	1971	1972	1973
New South Wales	400,159	701,981	860,565	745,997	590,043
Victoria	267,414	255,923	226,126	237,561	157,607
Queensland	69,317	74,676	129,622	187,159	173,979
South Australia	82,190	70,184	58,129	77,299	44,708
Western Australia	30,561	19,971	37,537	57,328	28,330
Tasmania	67,665	68,044	69,317	73,342	44,477
Northern Territory	(a)	(a)	(a)	589	469
Australian Capital Territory	27	1,706	50	737	203
Australia	(b)917,333	(b)1,192,485	(b)1,381,346	1,380,012	1,039,816

(a) Not collected. (b) Incomplete; see footnotes to individual States.

FARM STOCKS OF HAY

(Tonnes)

State	At 31 March—				
	1969	1970	1971	1972	1973
New South Wales	1,849,083	2,577,233	2,561,303	1,782,023	1,192,843
Victoria	3,035,803	2,415,124	2,695,585	3,861,139	2,547,423
Queensland	(a)155,400	(a)258,480	287,762	338,670	294,848
South Australia	734,662	640,506	624,278	961,820	555,213
Western Australia	247,750	241,148	407,022	479,465	398,025
Tasmania	457,778	450,447	471,596	516,321	317,193
Northern Territory	(b)	(b)	(b)	945	521
Australian Capital Territory	5,055	13,757	9,805	14,350	2,885
Australia	(c)6,485,531	(c)6,596,695	(c)7,057,351	7,954,733	5,308,951

(a) Includes chaff. (b) Not collected. (c) Incomplete; see footnotes to individual States.

On-farm consumption of major cereal grains and hay

CEREAL GRAINS CONSUMED BY LIVESTOCK ON FARMS

(Tonnes)

State	1968-69	1969-70	1970-71	1971-72	1972-73
BARLEY					
New South Wales	40,519	44,362	46,186	83,275	92,180
Victoria	27,844	34,106	40,837	57,230	84,196
Queensland	86,473	86,205	62,302	68,183	73,527
South Australia	71,814	77,718	78,002	126,956	148,578
Western Australia	(a)	58,391	62,484	66,473	126,656
Tasmania	7,046	7,880	9,678	12,267	13,594
Northern Territory	(a)	(b)	(b)	(b)	(a)
Australian Capital Territory	(a)	57	(b)	(b)	62
Australia	n.a.	(c)308,719	(c)299,489	(c)414,384	(c)538,793
OATS					
New South Wales	165,771	94,940	131,025	192,623	253,697
Victoria	105,894	105,291	112,797	131,081	253,968
Queensland	2,068	13,510	9,587	6,730	9,591
South Australia	51,891	51,127	75,508	63,039	80,871
Western Australia	(a)	180,453	144,469	139,516	186,820
Tasmania	5,200	3,984	4,117	3,762	5,654
Northern Territory	(a)	(b)	(b)	7	(d)
Australian Capital Territory	(a)	258	152	504	232
Australia	n.a.	(c)449,563	(c)477,655	537,262	(c)790,833
WHEAT					
New South Wales	152,269	144,291	194,532	319,713	230,930
Victoria	91,999	54,263	64,661	70,969	209,135
Queensland	43,247	49,879	32,282	52,940	32,155
South Australia	23,687	22,175	39,409	55,345	73,915
Western Australia	(b)	54,491	73,642	78,803	72,980
Tasmania	10,583	6,976	10,466	11,919	13,987
Northern Territory	(a)	(b)	(b)	108	(d)
Australian Capital Territory	(a)	401	672	155	384
Australia	n.a.	(c)332,476	(c)415,664	589,952	(c)633,486

(a) Not collected. (b) Not collected separately. (c) Incomplete; see footnotes to individual States. (d) Not available for publication.

HAY CONSUMED BY LIVESTOCK ON FARMS

(Tonnes)

State	1968-69	1969-70	1970-71	1971-72	1972-73
CEREAL HAY					
New South Wales	196,704	123,641	176,193	251,585	242,414
Victoria	316,098	282,264	284,661	378,997	396,186
Queensland	(a)12,237	(a)21,442	18,972	26,597	25,830
South Australia	(b)	(a)171,765	217,929	222,076	234,755
Western Australia	(c)	249,773	251,627	229,665	241,573
Tasmania	(c)	(a)29,310	21,422	19,662	25,427
Northern Territory	(c)	(b)	(b)	365	542
Australian Capital Territory	(c)	530	293	1,027	356
Australia	n.a.	(d)878,725	(d)971,097	1,129,974	1,167,083
LUCERNE HAY					
New South Wales	323,705	214,280	408,512	561,260	558,448
Victoria	152,291	127,308	128,074	172,118	173,836
Queensland	(a)105,832	(a)311,262	164,919	172,208	184,626
South Australia	(b)	(a)75,033	95,769	95,413	99,019
Western Australia	(c)	(b)	(b)	5,461	8,070
Tasmania	(c)	(b)	(b)	12,444	14,572
Northern Territory	(c)	401	1,212	4,015	562
Australian Capital Territory	(c)	2,033	3,130	3,433	3,256
Australia	n.a.	(d)730,317	(d)801,616	1,026,352	1,042,389
OTHER HAY					
New South Wales	366,625	184,142	306,764	445,767	307,709
Victoria	1,351,255	1,321,737	1,477,258	1,916,440	1,800,674
Queensland	(a)82,494	(a)209,548	146,631	59,733	58,261
South Australia	(a)405,007	(a)218,544	263,388	293,527	307,146
Western Australia	(c)	227,505	220,878	216,087	234,874
Tasmania	(c)	151,598	246,320	326,094	317,999
Northern Territory	(c)	1,977	3,596	2,225	2,323
Australian Capital Territory	(c)	738	843	1,373	497
Australia	n.a.	2,315,789	2,665,678	3,261,246	3,029,483
(a) Includes chaff. (b) Included in 'other hay'. (c) Not collected. (d) Incomplete; see footnotes to individual States.					

Agricultural machinery on rural holdings

The tables following show the principal types of agricultural machinery on rural holdings in the States and Territories at 31 March 1973. Additional information was published in the statistical bulletin *Rural Land Use, Improvements, Agricultural Machinery and Labour, 1972-73* (10.59).

Farm machinery on rural holdings

AGRICULTURAL MACHINERY ON RURAL HOLDINGS: 31 MARCH 1973

(Number)

<i>Machinery</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Tractors—									
Wheeled	83,115	79,449	66,004	34,370	31,970	11,742	444	177	307,271
Crawler	6,275	3,119	8,610	2,888	3,549	1,163	164	7	25,775
Fertiliser distributors and broad-casters(a)	24,647	27,829	17,753	9,863	10,108	5,766	98	76	96,140
Grain and seed harvesters (including headers and strippers)—									
Tractor drawn	13,835	10,713	4,217	8,738	8,026	533	28	17	46,107
Self-propelled	5,121	1,836	3,563	2,352	2,079	128	24	6	15,109
Grain drills—									
Combine type	29,729	19,999	15,090	15,408	13,847	1,527	89	54	95,743
Other type	5,929	6,948	1,902	4,148	3,145	1,962	11	21	24,066
Pick-up balers	12,339	14,814	3,775	5,624	4,674	2,082	52	39	43,399
Forage harvesters	3,218	2,211	1,678	877	670	352	30	8	9,044
Rotary hoes and rotary tillers—									
Self-contained power unit	8,386	6,927	3,776	3,359	1,756	1,241	68	40	25,553
Tractor mounted and trailing types	9,180	5,302	5,996	2,880	2,159	1,175	48	10	26,750
Milking plant (number of units)	31,482	113,335	26,890	15,834	8,529	15,715	34	69	211,888

(a) Rotary and direct drop.

AGRICULTURAL MACHINERY ON RURAL HOLDINGS: AUSTRALIA

(Number)

<i>Machinery</i>	<i>31 March</i>				
	<i>1969</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>	<i>1973</i>
Tractors—					
Wheeled	299,297	303,458	300,821	305,719	307,271
Crawler	24,299	26,567	25,904	25,698	25,775
Fertiliser distributors and broad-casters(a)	97,119	98,447	98,117	96,832	96,140
Grain and seed harvesters (including headers and strippers)—					
Tractor drawn	53,883	50,163	49,904	48,479	46,107
Self-propelled	13,213	13,191	13,871	15,040	15,109
Grain drills—					
Combine type	94,650	94,917	93,567	95,793	95,743
Other type	28,490	27,196	25,717	24,959	24,066
Pick-up balers	40,142	41,237	42,187	42,942	43,399
Forage harvesters	8,016	8,421	8,523	8,960	9,044
Rotary hoes and rotary tillers—					
Self-contained power unit	25,722	24,549	23,059	24,884	25,553
Tractor mounted and trailing types	21,581	20,837	23,264	26,733	26,750
Milking plant (number of units)	231,698	228,042	n.a.	209,805	211,888
Shearing plant (number of stands)	196,286	195,352	n.a.	188,482	n.a.

(a) Rotary and direct drop.

Sales of new tractors for agricultural purposes

Details of the sales of new tractors for agricultural purposes are given in the quarterly publication *Receipts, Sales and Stocks of New Tractors* (12.18).

RURAL EMPLOYMENT

Employment on rural holdings

The following tables contain details of persons working on rural holdings at the end of March as recorded in the annual Agricultural Census.

Males working permanently full-time include all other than casual or seasonal workers, boys and youths attending schools and other persons working only part-time. Casual or seasonal workers, including contractors for shearing, etc., but not those engaged on construction and development work, are shown as temporary employees.

Attention should be drawn to the difficulty encountered in obtaining data on persons working on holdings on a comparable basis from year to year. This is mainly owing to the changing number of lessees and sharefarmers, and the tendency of many farmers to include part-time family helpers as full-time workers in their returns.

Additional particulars relating to the number of males employed in agriculture up to 1941-42 are shown in Year Book No. 36, page 852, and previous issues. Similar details for later years are not available.

MALES (a) WORKING ON RURAL HOLDINGS: 31 MARCH 1973

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Permanent—									
Owners, lessees or sharefarmers	53,094	53,254	35,238	21,274	19,759	6,349	195	97	189,260
Relatives of owner, lessee or sharefarmer—									
Over 15 years of age, not receiving wages or salary	357	3,463	2,695	102	1,129	..	33	3	7,782
Employees, incl. managers and relatives working for wages or salary	21,314	10,746	13,617	5,737	6,489	2,975	1,611	91	62,580
<i>Total permanent males</i>	<i>74,765</i>	<i>67,463</i>	<i>51,550</i>	<i>27,113</i>	<i>27,337</i>	<i>9,324</i>	<i>1,839</i>	<i>191</i>	<i>259,622</i>
Temporary	22,783	21,218	14,484	7,537	(b)	4,169	533	90	(b)
Total males	97,548	88,681	66,034	34,650	(b)	13,493	2,372	281	(b)

(a) Details for females are not available except for New South Wales and Victoria where 6,850 and 15,493 females respectively were engaged on rural holdings. (b) Not available for publication.

MALES (a) WORKING ON RURAL HOLDINGS: AUSTRALIA

	31 March—				
	1969	1970	1971	1972	1973
Permanent—					
Owners, lessees or sharefarmers	207,192	201,505	191,180	194,905	189,260
Relatives of owner, lessee or sharefarmer over 15 years of age, not receiving wages or salary	(b)11,421	(b)9,860	(b)8,062	8,797	7,782
Employees, incl. managers and relatives working for wages or salary	79,295	75,808	69,667	65,333	62,580
<i>Total permanent males</i>	<i>297,907</i>	<i>287,173</i>	<i>268,909</i>	<i>269,035</i>	<i>259,622</i>
Temporary	(c)	(c)	(c)	(c)	(c)
Total males	(c)	(c)	(c)	(c)	(c)

(a) Details for females are not available except for New South Wales and Victoria. See footnote (a) to previous table for 1973 totals. (b) Over 14 years of age. (c) Not available for publication.

Employment in the agricultural sector

In addition to the statistics of employment on rural holdings compiled from agricultural census data, agricultural industry employment statistics are also available from the regular labour force surveys conducted by the Bureau, and from the Australian population censuses which have been conducted on five occasions since 1947. Population census information was published in *Rural Land Use, Improvements, Agricultural Machinery and Labour, 1971-72*, (10.59).

In the labour force surveys, the agricultural labour force estimates form part of the civilian labour force estimates. The estimates are based on the results of the quarterly population survey, and are conducted on a sample basis throughout Australia in February, May, August and November each year. The survey information is obtained by means of personal interviews carried out by specially trained enumerators. The estimates relate to all persons aged fifteen years and over, except members of the permanent armed forces and certain diplomatic personnel customarily excluded from census and estimated populations. A table showing an estimate of employment in agriculture from the labour force survey is shown on page 696. The table is based on the Australian Standard Industrial Classification (ASIC).

Under the *ASIC classification*, the term *agriculture* is used in the broad sense to include the breeding, keeping or cultivation of animal or vegetable life, the sun-drying of fruit and the agricultural service industries, such as those operating on a contract, consultant, etc., basis. However, the following activities which could be construed as falling within the ambit of agriculture, as specified in the previous sentence, are specifically excluded:

Forestry, pisciculture and the cultivation and production of aquatic vegetation, flora and fauna sanctuaries, botanical and zoological gardens, and institutional farms with research or penal functions.

Further information relating to the labour force surveys can be obtained from the quarterly Bureau publication *The Labour Force* (6.20).

ASSISTANCE TO, AND REGULATION OF, AGRICULTURE

This section is intended to provide a summary of the means by which the Australian agricultural industries are assisted and regulated. It is not intended to provide a comprehensive statement of all the consultative and legislative assistance and control measures that exist, but rather to describe the way in which these processes affect the crops, livestock and livestock products referred to earlier in this chapter.

General**The Australian Agricultural Council**

The influence of government and semi-government authorities on Australian rural industry is most apparent in the fields of guaranteed prices, subsidies and controlled marketing. Many of these aspects of intervention at the national level take place indirectly through the Australian Agricultural Council. This is a permanent organisation which was formed following a conference of Federal and State Ministers on agricultural and marketing matters held at Canberra in December 1934. The Council consists of the Australian Government Ministers for Agriculture, Northern Development and the Northern Territory and the State Ministers of Agriculture/Primary Industries, with power to co-opt the services of other Australian Government and State Ministers as required. The principal functions of the Council are: the promotion of the welfare and development of agricultural industries generally; the exchange of information on agricultural production and marketing; the improvement of the quality of agricultural products and the maintenance of high grade standards; to ensure, as far as possible, balance between production and available markets; and organised marketing.

A permanent Standing Committee on Agriculture was also formed to advise the Council on all the above matters and, in addition, to bring about co-operation and co-ordination in agricultural research, to advise Governments on the initiation and development of agricultural research programs, and to secure co-operation between all Governments in respect of quarantine measures against pests and diseases of plants and animals.

The Standing Committee on Agriculture comprises the permanent heads of the Australian and State Departments of Agriculture/Primary Industries and a representative each from the Australian Departments of the Treasury, Health, Overseas Trade, Northern Development, the Northern Territory, and from the Commonwealth Scientific and Industrial Research Organization.

The Rural Reconstruction Scheme

The Rural Reconstruction Scheme commenced in 1971 when the Australian Government agreed to make finance available to the States to help restore to economic viability those farms and farmers with the capacity to maintain viability once achieved.

Originally \$100 million was to be made available to the States over a period of 4 years ending 30 June 1975. In addition the States were authorised to use \$9.5 million from the pre-war Farm Debt Adjustments Scheme for rural reconstruction purposes. However following a review of the Scheme in 1972 the Australian Government undertook to provide the whole \$100 million by 30 June 1973 and to provide an additional \$18 million in 1973-74 to fund approvals given in the later months of 1972-73.

At the 1973 Review it was agreed to extend the Scheme for 3 years to 30 June 1976 with the Australian Government authorising each State to approve a maximum amount of assistance in each year. A total of \$36 million was allocated for 1973-74 and \$28 million for 1974-75.

The Australian Government provides the funds to the States on the basis of 75 per cent loan (repayable over 20 years) and 25 per cent grant. The States lend money to eligible farmers who repay their loans, with interest, over a period of years to the State. Each State Government has appointed an Authority responsible to a Minister, to undertake the detailed administration of the Scheme within its State.

Three forms of assistance are available.

Debt reconstruction to assist the farmer who, although having sound prospects of long term commercial viability, has used all his cash and credit resources and cannot meet his financial commitments.

Farm build-up to assist the normal processes under which properties which are too small to be economic are amalgamated with an adjoining holding or are subdivided and the subdivided portions are added to adjoining holdings, or to assist a farmer with a property too small to be economic to purchase additional land to build up his property to at least economic size.

Rehabilitation to provide limited assistance to those obliged to leave the industry where, in the opinion of the Authority administering the Scheme, this is necessary to alleviate conditions of personal hardship. The maximum rehabilitation loan at present is \$3,000.

To 30 June 1974 over \$161 million had been approved under the Scheme to provide assistance to 3,817 farmers for debt reconstruction, 2,008 for farm build-up and 167 farmers in need of rehabilitation assistance.

Agricultural research

Each State Department of Agriculture has a number of research stations investigating problems mainly of the regions in which they are located. In addition, a substantial amount of research and investigational work is carried out by these departments on farmers' properties. The work is supported by central laboratory and service facilities in capital cities and also by research analytical and diagnostic laboratories in the country areas. Research results are passed on to farmers through field days, meetings and publications, and through extension staff of the State Departments of Agriculture. In recent years, there has been increasing interest in economic interpretation of research results.

The Commonwealth Scientific and Industrial Research Organization carries out research at field stations and laboratory facilities in many parts of Australia, and also undertakes developmental studies at national level. Its research programs in the agricultural and livestock fields are generally designed to give information which is widely applicable in the Australian environment, and which may require further regional interpretation and adaptation in order that it may be of use to the farming industries. Universities also carry out agricultural research at laboratory and field levels, in addition to their teaching functions.

For details of agricultural training *see* Chapter 19, Education.

Research schemes

The research activities of State departments, the C.S.I.R.O., universities and other institutions, are supplemented by funds provided under a series of joint Australian Government-industry research schemes. Statutory arrangements of this nature exist for tobacco, wool, wheat, dairying, meat, poultry (eggs), chicken meat, pigs, dried fruits and fish. Contributions to these research schemes are raised from the industry by way of a levy on the produce concerned, matched by Australian Government funds (*see* Chapter 18, Public Finance pages 601-2).

For research work in industries where legislation-backed arrangements do not exist, voluntary contributions from the rural industry are matched by the Australian Government from a special research grant to finance a range of research projects, e.g. fruit fly disinfestation, locust control, grape forecasting, honey and potato research.

Extension services and market outlook information

Agricultural extension services are provided by the States through their Departments of Agriculture and in certain special fields by other State departments and authorities. Extension services also operate in the Northern Territory and the Australian Capital Territory.

All State Departments of Agriculture have university or agricultural college trained officers located in country areas. They carry out advisory and educational activities in the farming community, through contact with individual farmers, and through group and general publicity channels. In recent years several States have placed agricultural economists in country areas, strengthening the economic and farm management content of extension work.

Support for the field extension staff is provided by information service groups, by applied research teams and industry and subject matter specialist groups, and by diagnostic and analytical services. Some States have advisory staff specialising in agricultural mechanisation. In recent years emphasis has been placed on the regional development of extension services.

Information services operated by Departments of Agriculture include agricultural journals, periodicals in various industry fields, pamphlets, newsletters, films, radio talks and television presentations. Group activities include discussion groups, field days, demonstrations, evening meetings and displays.

Since 1948 the Australian Government has provided unmatched grants to the States to assist them in expanding their extension activities. In 1966, a program of rapid expansion of this assistance beyond the existing provision of \$1.4 million per annum was undertaken with \$21 million being made available during the subsequent five years through the Australian Government Extension Services Grant. Provision for the five year period which began in 1971 amounts to \$37 million. The Grant is used mainly by State Departments of Agriculture, and its scope includes extension, regional research, information, economic services, agricultural education and training.

Since 1971 the Bureau of Agricultural Economics has organised a series of annual National Agricultural Outlook Conferences to which representatives from industry bodies, marketing authorities, State and Australian Government departments, universities and other agricultural institutions are invited to analyse and discuss in depth the outlook for rural commodities.

Extension type services are available from non-government sources. Some commercial firms and co-operatives provide extension or advisory services primarily for their clients. Over the past decade a new service of farm management consultants has emerged, providing fee or contract services ranging from property assessment or supervision to detailed farm management and development plans. Farmers' needs and interests were demonstrated by an initial phase of grouping themselves together in farm management clubs to employ their own advisors.

Crops and crop products

Wheat marketing and research

Two of the aspects of government and semi-government assistance and control which have contributed to the development of the industry are the organisation of overseas marketing and of research.

As a large proportion of the Australian wheat crop is exported, the marketing of wheat plays an important part in the industry. The Australian Wheat Board was constituted in September 1939, under National Security (Wheat Acquisition) Regulations, to purchase, sell, or dispose of wheat or wheat products, and to manage and control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired, and such other matters as were necessary to give effect to the regulations. Details of the operations of the Australian Wheat Board and the Wheat Stabilization Board in licensing wheat grown during the seasons 1941-42 to 1948-49 will be found in Year Book No. 38, pages 940-1, and a detailed survey of legislation relating to stabilisation of the wheat industry, including controls exercised during the 1914-18 and 1939-45 Wars and legislation establishing the Wheat Industry Stabilisation Plan in 1948, is given in the Appendix to Year Book No. 37, pages 1295-9.

The Wheat Industry Stabilisation Board ceased to function on 31 December 1948, and under the *Wheat Industry Stabilization Act 1948* the Australian Wheat Board was reconstituted to administer the first stabilisation plan and was given powers similar to those held under the National Security Regulations. The new Board commenced to function on 18 December 1948. The Board has been

continued in existence by the *Wheat Industry Stabilization Acts* 1954, 1958, 1963-66 and 1968-73 for the purpose of administering the second, third, fourth and fifth five year stabilisation plans. Details of the more recent plans were published in Year Book No. 40, pages 841 and 842 (1947-48 to 1952-53 Plan), No. 44, page 861 (1953-54 to 1957-58), No. 48, pages 903 and 904 (1958-59 to 1962-63), No. 54, pages 868 and 869 (1963-64 to 1967-68), and No. 55, pages 834 and 835 (1968-69 to 1972-73).

The Fifth Wheat Industry Stabilisation Plan was to operate for five years, commencing with the 1968-69 crop and ending with the marketing of the 1972-73 crop. However, the plan was subsequently extended, for one year, to cover the 1973-74 crop. More detailed information is available in the publication: *The Wheat Industry, 1972-73 and 1973-74 (Preliminary)*, (10.35).

Sixth Wheat Industry Stabilisation Plan, 1974-75 to 1979. The sixth post-war Wheat Industry Stabilisation Plan was agreed to by the industry and the Australian and State Governments following negotiations during 1973 and 1974. The *Wheat Industry Stabilization Act* 1974 and the complementary *Wheat Export Charge Act* 1974 and the *Wheat Products Export Adjustment Act* 1974 were enacted in September 1974. Complementary legislation was enacted by the State Governments by the beginning of the marketing year on 1 December 1974 as some aspects of the plan rely on State law for their operation. The new plan abandoned the concept of guaranteed price, replacing it with a stabilized price related to movements in the International Wheat Market. Details of the guaranteed price operating under the former plan are given in earlier issues of the Year Book. The main features of the new stabilisation plan are set out below:

- (i) *Period of the plan.* The plan is to operate for five years commencing 1 October, 1974. The Australian Wheat Board's marketing powers will be extended for two seasons beyond the duration of the stabilisation plan to enable continuity of the Board's operations to be maintained.
- (ii) *Stabilisation price.* For the 1974-75 season the price is set at \$73.49 per tonne f.o.b. The price will be adjusted for each of the next four succeeding seasons by application of the formula

$$SP_2 = SP_1 + \frac{EP_2 - A_1}{4}$$

where SP_2 = stabilisation price for the current season;

SP_1 = stabilisation price for the season immediately preceding the current season;

EP_2 = the average export price for the current season, and

A_1 = one-half the sum of the average export price for the season immediately preceding the current season and the stabilisation price for that immediately preceding season.

- (iii) *Average export price.* The average price, f.o.b. equivalent, contracted to be paid for all exported wheat.
- (iv) *Operation of the Stabilisation Fund.* The Stabilisation Fund will commence with a credit balance (estimated at \$48 million) equal to the amount to be contributed as charge on wheat exports for the 1973-74 season.

Industry contributions to the Fund. When the average price for all exports of a season is above the stabilisation price set for that season, and above \$55.12 per tonne f.o.b., growers will contribute to the fund up to \$30 million or \$5.51 per tonne, whichever is the lower, subject to the growers' contribution not exceeding an amount which would bring the final price, that is the average export price less the contribution to the fund, down to \$55.12 per tonne. If the aggregate of the growers' contributions plus the interest earning should at any time take the fund to a credit in excess of \$80 million, the excess will be refunded to the Wheat Board for distribution to the earliest contributing pool.

Payment from the Fund. When the average price for all exports of a season is below the stabilisation price set for that season, growers will receive from the fund payments necessary to lift the average price for all exports of the season to the stabilisation price, subject to,

- (a) maximum payment per season of \$30 million or \$5.51 per tonne, whichever is the lower, and
- (b) the payment not exceeding an amount which will bring the final price, that is the average export price plus the payment from the fund, to \$73.49 per tonne. A qualification is that should the credit of the fund reach \$80 million this restriction on payments from the fund will not apply for the ensuring period of the plan.

Government support for the Fund. If, in any season, the fund contains an insufficient level of industry contributions to meet payments required to be made from the fund in that season, the Government will contribute to the fund for monies necessary to meet the deficiency, subject to

- (a) Any Government contribution to the fund being repaid to the Government from industry contributions and subsequent seasons of the plan period before those industry contributions are accumulated in the fund, and
- (b) the net Government contribution to the fund over the 5 seasons not exceeding \$80 million.

The Government has agreed that any outstanding Government contributions not recouped by the end of the fifth season will be written off. Details of the former stabilisation fund arrangements are given in previous issues of the Year Book.

- (v) *Home consumption price.* The home consumption price arrangements will continue on the existing basis except that the Act in authorising the Minister to determine, in consultation with the State Ministers, the price at which the basic wheat is to be sold by the Board on the domestic market, does so on the basis that it will be a single price for wheat for all purposes.

The home consumption price in each year commencing on 1 December will be adjusted on the base level of \$70.41 per tonne, being the 1973-74 price (less the Tasmanian freight loading), according to movements in cash costs and in rail freight and handling charges.

- (vi) *Tasmanian freight loading.* Continuing provision will be made for the Board to recoup in the the home consumption price the cost of shipping wheat from the mainland to Tasmania but on the basis that the Board will be empowered to take such steps as are practicable to recoup from Tasmanian interests the freight costs of the wheat equivalent of any products made from wheat of mainland origin and exported from Tasmania to the mainland.
- (vii) *Nomenclature.* The term 'fair average quality' (f.a.q.) has been replaced by the term 'Australian standard white' (A.s.w.) which means wheat other than wheat classified by or on behalf of the Australian Wheat Board as prime hard, hard, durum or soft biscuit wheat or as having a defect quality.
- (viii) *Quota arrangements.* The Act contains provisions for the retention of the wheat delivery quota mechanism on the basis that it will be optional whether State governments make allocations of any State quotas, which may be applied in a season, to individual growers. However, the Act continues the existing requirement that in a quota season advances will only be payable by the Board on wheat delivered within a State up to the level of the quota determined for that State.
- (ix) *Borrowings by the Board.* The Board retains the authority to borrow from the Reserve Bank, through its Rural Credits Department, the funds required for first advance payments to growers and for its marketing operations. In addition it is being given a supplementary borrowing power which could be used to make progress payments to growers at an accelerated rate, to expedite repayment of seasonal borrowings from the Reserve Bank or to finance stock holdings for lengthy periods. It is envisaged that the Board will only be authorised to borrow commercially against fully secured outstanding debts. All borrowings will be with the approval of the Minister and a Government guarantee of repayment may be given.

Wheat prices: Home consumption prices. Amending legislation, with effect from December 1969, gave the Australian Wheat Board discretionary power to sell wheat in Australia for purposes other than human consumption at prices below that set for human consumption but not less than the equivalent of the guaranteed price. However, as indicated in (v) above, at the beginning of the 1973-74 season the Board reverted to selling all wheat on the home market at a single domestic price i.e. the home consumption price.

The table below shows the home consumption prices of wheat by end usage, for the last five years.

WHEAT PRICES: HOME CONSUMPTION PRICES(a)(b)
(\$ per tonne)

Utilisation	1969-70	1970-71	1971-72	1972-73	1973-74
Human consumption	63.38	63.93	65.40	67.63	} 71.10
Manufacture of flour for industrial use	52.73	53.28	54.75	56.98	
Stockfeed (basic)	55.12	56.95	58.79	67.63	
Stockfeed (where purchaser undertakes to buy entire season's requirements from Wheat Board)	52.73	53.28	54.75	56.98	

(a) Australian Wheat Board basic selling price for f.a.q. bulk wheat, f.o.r. (ports) basis. (b) Includes a loading of \$0.59 per tonne in 1969-70, \$0.55 in 1970-71, \$0.44 in 1971-72, \$0.83 in 1972-73 and \$0.69 in 1973-74 to meet freight charges on wheat shipped to Tasmania.

Wheat delivery quotas plan

In March 1969 the Australian Wheat Growers' Federation put forward proposals for the allotment of quotas on deliveries of wheat to the Australian Wheat Board. The Federation's proposals were mainly designed to bring marketable supplies of wheat more into line with available outlets, following the record 1968-69 harvest. The proposals became effective for the 1969-70 harvest. State governments have the responsibility, for constitutional reasons, of implementing the quota plan within the States and each State has enacted the necessary enabling legislation. The period of operation of the legislation varies among the States.

Quotas are subject to annual review. Wheat in excess of a quota may be received from a grower if storage space is available but 'quota wheat' will receive preference as far as receipt and subsequent sale by the Australian Wheat Board is concerned.

State quotas effective for the 1971-72 to 1973-74 seasons and those proposed by the Federation and agreed to by all parties for 1974-75 are given in the table below.

WHEAT DELIVERY QUOTAS
(^{'000} tonnes)

<i>Quota</i>	<i>State</i>	<i>Seasons</i>			
		<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>	<i>1974-75</i>
Basic	New South Wales	3,102	4,028	5,030	5,030
	Victoria	1,551	1,823	2,490	2,490
	Queensland	735	871	1,012	1,012
	South Australia	1,089	1,252	1,886	1,886
	Western Australia	2,068	2,585	3,065	3,065
	<i>Total</i>	<i>8,545</i>	<i>10,559</i>	<i>13,483</i>	<i>13,483</i>
Additional	New South Wales—				
	Prime hard	327	191	191	191
	Durum	54	54	54	54
	Queensland—				
	Prime hard	299	163	163	163
	South Australia—				
Southern hard	..	109	109	109	
	<i>Total</i>	<i>680</i>	<i>517</i>	<i>517</i>	<i>517</i>
	Grand total	9,225	11,076	(a)14,000	(a)14,000

(a) In terms of ^{'000} tonnes the national and State quotas are: New South Wales 5,275, Victoria 2,490, Queensland 1,175, South Australia 1,995, Western Australia 3,065, total 14,000. In addition, for 1974-75 (as in 1973-74) provision has been made for a special pool quantity of 2,000,000 tonnes which will be available as determined by the Minister for Agriculture, to any State that achieves deliveries in excess of its quota.

Deliveries made within the quotas established receive a first advance payment. This was \$1.10 per bushel (\$40.42 per tonne) for A.s.w. bulk wheat, f.o.r. ports basis for a number of years. For 1973-74 in addition to \$1.10 there was a special incentive first advance payment of 10 cents per bushel (\$3.67 per tonne). For 1974-75 there will be the same first advance payment of \$1.20 per bushel (\$44.09 per tonne). The quota plan also provides that wheat received which is declared by the Australian Wheat Board to have been sold and paid for within the season will be treated as quota wheat of the season and receive a first advance payment.

The States are responsible for determining the method of allocation of individual quotas within their respective boundaries. The bases of quota allocation vary from State to State, but in the main, quotas are based on a farm's average deliveries over a recent period.

International Wheat Agreement

Details of the first and second International Wheat Agreements operative from 1 August 1949 to 31 July 1953, and from 1 August 1953 to 31 July 1956, respectively, were published in Year Book No. 42 (see pages 840-1) or previous issues. Details of the third, fourth and fifth International Wheat Agreements which covered the periods from 1 August 1956 to 31 July 1959, 1 August 1959 to 31 July 1962 and 1 August 1962 to 31 July 1968 were published in Year Books 43 (page 836), 48 (page 906) and 55 (page 836) respectively.

International Wheat Agreement, 1971. This Agreement came into force on 1 July 1971. It originally had a life of three years but was extended by protocol for one year to 30 June 1975. The form of the 1967 International Grains Agreement was continued and the new Agreement comprises two separate legal instruments, namely the Wheat Trade Convention and the Food Aid Convention.

The new Wheat Trade Convention ensures that the machinery for consultation and co-operation on wheat marketing existing under earlier Agreements will be maintained. The administrative body, the International Wheat Council, continues in existence. The Convention provides for the continuation of the full reporting and recording of all commercial and concessional transactions in wheat and flour.

The 1971 Wheat Trade Convention differs in an important aspect from earlier agreements in that it contains no specific pricing provisions, but the agreement specifically provides that when prices and related rights and obligations are judged capable of successful negotiation, the International Wheat Council shall arrange a further conference with the objective of bringing them into effect. In addition, an Advisory Sub-Committee on Market Conditions keeps the wheat market under continuous review. This Sub-Committee is required to report to the Executive Committee of the Council if it considers that a situation of market instability has arisen, or threatens to arise. The Executive Committee will then review the situation and try to find mutually acceptable solutions.

All major wheat trading nations except the People's Republic of China participate in the Wheat Trade Convention. China may participate if it so wishes.

The Food Aid Convention is basically unchanged from the previous arrangement. Under this Convention a number of developed countries, importers and exporters alike, will continue to provide developing countries with food aid in the form of grains or flour for human consumption. Australia's contribution will remain unchanged at 225,000 tonnes annually (8,267,000 bushels of wheat). Minimum annual contributions under the Convention will total 4,226,000 tonnes in 1974-75.

Several minor changes were incorporated in the new Food Aid Convention. A new clause provides that in exceptional cases, and on request, limited quantities of rice may be included in the program. Also, sales on credit terms of 20 years or more are eligible to be counted against aid commitments provided that maximum use is made of the other eligible forms of aid such as grants and sales for non-transferable local currency.

International Grains Arrangement

In August 1967 agreement was reached on an International Grains Arrangement to operate for a period of three years from 1 July 1968. Details of the Arrangement were published in Year Book No. 55 (*see page 836*).

A new three year International Wheat Agreement came into effect on 1 July 1971. Like the International Grains Arrangement it covers a Wheat Trade Convention and a Food Aid Convention. The Wheat Trade Convention differs markedly from its 1968 predecessor in that it does not establish any maximum or minimum price provisions. For further details *see Year Book No. 59, page 765*.

Research into the wheat industry

To the end of June 1974, the Wheat Industry Research Council and the State Wheat Industry Research Committees had spent \$21,506,000 mainly through grants to the Commonwealth Scientific and Industrial Research Organization, State Departments of Agriculture, universities and Wheat Research Institutes.

SUGAR CANE

Sugar agreements and marketing arrangements in Australia

In Year Book No. 37, pages 940-1, a summary is given of the form of agreement which operates between the Australian and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the maximum price of refined sugar sold to wholesalers for consumption in Australia. The 1962 Agreement was replaced by a new Agreement in 1969. This Agreement expired on 30 June 1974 but was extended to 30 September 1974. The price of refined sugar under the current Agreement results in an approximate retail price of about 23 cents per kilogram.

Control over production of sugar is the responsibility of the Queensland Government. At the mill level, production control is exercised by means of seasonal 'mill peaks' in respect of Queensland mills and a proportionate allowance for New South Wales mills. The combined total of 'mill peaks'

approximately equals the estimated requirements of the domestic and secure export markets. Individual farm production is regulated in accordance with the production limit on that mill which the farm supplies.

The Queensland Government acquires the whole of the sugar production of that State and of New South Wales, by legislation and private agreement respectively. The net proceeds of all sugar sold are pooled and uniform prices paid to mills. Production in 1973-74 was 2,526,000 tonnes basis 94 net titre and for 1974-75 is estimated to be 2,977,000 tonnes 94 net titre, of which New South Wales is expected to contribute approximately 123,000 tonnes.

International Sugar Agreement

The 1973 International Sugar Agreement, which is now in operation, came into force on the expiry of the 1968 Agreement; and that Agreement was preceded by the 1937, 1953, and 1958 Agreements. Details of the 1937, 1953, 1958 and 1968 Agreements were given in Year Books No. 40, pages 881-2; No. 48, page 936; No. 54 page 892; and No. 59, pages 782-3, respectively.

A United Nations Sugar Conference was convened in 1973, the last year of the 1968 Agreement, to negotiate a new International Sugar Agreement to follow on the 1968 Agreement. It was not possible to negotiate at the Conference an Agreement with economic provisions, such as the 1968 International Sugar Agreement, which established basic export tonnages for all exporters, a quota/price mechanism, and stockholding, supply commitment, and import limitation obligations.

The 1973 International Sugar Agreement does not have any economic provisions and is only an administrative Agreement. It provides for the continuation of the International Sugar Organisation, and for work to progress towards the negotiation of a new Agreement. The 1973 Agreement is of two years duration, but may be extended; or it may be terminated earlier in the event of entry into force of a new Agreement with economic provisions.

Australia is an exporting member of the International Sugar Organization under the 1973 International Sugar Agreement.

Commonwealth Sugar Agreement

Under the terms of the Commonwealth Sugar Agreement, Australia has supplied over 300,000 tonnes of sugar annually for over twenty years to the United Kingdom at a negotiated price. At the 1971 triennial review of the Agreement, the annual negotiated price quota was continued at 335,000 long tons, and the negotiated price for the three years 1972 to 1974 was agreed at £stg 50 per long ton. f.o.b. and stowed, bulk sugar 96° polarisation. In early 1974, it was agreed that an additional £stg 11 per ton would be paid on shipments of negotiated price sugar in the 1974 calendar year.

The Commonwealth Sugar Agreement terminated at the end of 1974, as a consequence of the United Kingdom's accession to the European Economic Community.

Exports to the United States of America

Australian sugar exports to the United States of America are subject to the quota provisions of the United States Sugar Act, which expired at the end of 1974. Exports are sold on the U.S. domestic market, to which supplies may be regulated by Sugar Act quotas with the aim of maintaining stable and equitable prices. However, in 1974 the U.S. domestic market raw sugar price moved upwards very substantially, paralleling the upward movement of world free market sugar prices.

Australia's exports to the U.S. have varied from year to year following changes in quotas as U.S. requirements and domestic production, and export availabilities of other suppliers, have changed. In 1973 exports amounted to 230,800 tonnes of raw sugar, and as at 30 September 1974 the 1974 entitlement amounted to 204,450 tonnes.

Fruit Industry Sugar Concession Committee and sugar rebates

The Fruit Industry Sugar Concession Committee was established by agreement between the Australian and Queensland Governments and administers a fund provided from contributions by the Queensland Government on behalf of the sugar industry.

Until 15 May 1960 a domestic rebate of \$4.40 a ton of refined cane sugar used in processing approved fruit products was paid to Australian manufacturers, provided they bought fresh fruit for processing at prices not lower than those declared by the Committee as reasonable. This was increased to \$10 a ton from 16 May 1960 and to \$15 from 1 July 1969.

An export sugar rebate is also paid by the Committee to exporters of approved fruit products to ensure that manufacturers do not pay higher prices for the Australian sugar content than the Australian equivalent of the world sugar parity price. The Queensland Government is responsible for payment of a similar rebate to exporters of other approved products. Payment of the export sugar rebate in respect of approved fruit products has been made conditional upon satisfactory arrangements having been made for payment for the fresh fruit used for processing at not less than the prices (if any) which the Committee has declared to be reasonable.

Under the Sugar Agreement 1969 the Queensland Government contributes \$924,000 to the fund annually, out of which the Committee pays the domestic sugar rebate on approved fruit products manufactured. The Queensland Government also reimburses the Committee for the latter's payments of the export rebate paid on approved fruit products which are subsequently exported. Any money remaining in the fund after the payment of rebates and administrative expenses may be used by the Committee for the promotion of the use and sale of fruit products, or for research for the purpose of increasing the yield per hectare of Australian fruit, or of obtaining information regarding Australian marketable fresh fruits.

Financial assistance to the sugar industry

Under the provisions of the *Sugar Marketing Assistance Agreement Act 1967* and the *Sugar Industry Assistance Act 1967* the Australian Government arranged two loans to assist the returns from No. 1 Pool in the 1966 and 1967 seasons. The total amount of \$23,327,590 so advanced is repayable over ten years commencing in mid-1971, and was not subject to interest before then. Thereafter it incurs interest at the rate of five per cent per annum.

TOBACCO

Tobacco marketing

Between 9 May 1941 and 24 September 1948 all leaf was under the direct control of the Australian Tobacco Board, and prices were paid on leaf appraisal. Subsequently the Board was disbanded, and sales have been by open auction through the Tobacco Leaf Marketing Board (Queensland and northern New South Wales) and the Victorian Tobacco Growers Association Ltd (southern New South Wales and Victoria). In 1964 the Victorian Tobacco Leaf Marketing Board was set up to market the portion of the crop that was formerly sold by the Victorian Tobacco Growers Association Ltd, and in 1965 a Board was established in New South Wales. However, the actual physical handling of New South Wales leaf at auction is carried out by the Queensland and Victorian authorities.

In 1965 the Australian and State Governments agreed to a stabilisation plan for the tobacco growing industry with an annual marketing quota of 11.793 million kilograms (green weight) of leaf to be sold under an agreed grade and price schedule providing for an average minimum price based on normal crop fall-out. The overall marketing quota is divided among tobacco-producing States according to a formula approved by the Australian Agricultural Council. The determination of grower disputes in regard to quotas from State allocations is the responsibility of State Quota Committees.

In 1968, the final year of the plan, the Governments concerned agreed that it should continue for a further period of five years with an increased marketing quota for the 1969 selling season of 12.927 million kilograms, which was subsequently increased to 14.288 million kilograms to correct industry stockholdings which were depleted by higher than expected manufacturer usage. Provision was made for an annual review of the quota and in 1970 a basic quota of 15.422 million kilograms which was set for the 1971 season was retained through to the 1975 season. Each quota is to be divided among the producing States in the same proportions as the original quota.

The plan is administered by the Australian Tobacco Board, constituted under the *Tobacco Marketing Act 1965-1966* and representative of the Australian Government, tobacco-producing States, growers, and manufacturers.

The guaranteed average minimum Australian price for the 1971, 1972 and 1973 seasons, 252.4 cents per kg, is 12.1 cents per kg above the price set for the 1970 season. The price for the 1974 season was set at 288.4 cents per kg.

Central Tobacco Advisory Committee

The Australian Agricultural Council formed the Standing Advisory Committee on Tobacco during 1950. This Committee consisted of representatives of tobacco growers, tobacco manufacturers and the Australian and State Governments. Its main functions were to review the industry and make recommendations on factors affecting its development and progress. The Committee was reconstituted as a Central Tobacco Advisory Committee in 1952-53.

In order to receive funds for increased research and extension activities, the Tobacco Industry Trust Account was established by the *Tobacco Industry Act 1955-1965* and came into operation on 2 December 1955. Growers and manufacturers contribute to the Trust Account by way of levies imposed on Australian leaf sold and purchased. These industry contributions are matched by the Australian Government with payments made as funds are expended. The Governments of the three tobacco producing States make fixed annual contributions. Money standing to the credit of the Account may be applied for the purpose of research and investigation in connection with the tobacco industry, the training of personnel and the publication and dissemination of scientific and technical information for the industry.

The Central Tobacco Advisory Committee is required to make recommendations to the Minister for Agriculture in regard to expenditure from the Tobacco Industry Trust Account. By 30 June 1972 expenditure from the Account amounted to \$8.3 million, and allocations for support of research projects in 1972-73 totalled \$893,251.

Tobacco research and extension

The Commonwealth Scientific and Industrial Research Organization and the State Departments of Agriculture in the tobacco growing States are carrying out investigations into a wide range of problems involving fundamental and applied research in plant breeding and variety evaluation, nutrition, disease and pest control, and cultural practices. The State Departments also provide extension services for tobacco growers. A Mechanisation Sub-Committee of the Central Tobacco Advisory Council was established in 1970 to investigate and advise on practical aspects of mechanisation of the tobacco-growing industry.

Tobacco factories

Manufacturers of Australian cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf, provided it is blended with a prescribed minimum percentage of Australian leaf. These percentages, which in November 1946 stood at 3 per cent for cigarettes and 5 per cent for tobacco, have been increased progressively in intervening years and since 1 January 1966 have been set at 50 per cent for both cigarettes and tobacco.

In 1972-73 the quantity of cured leaf recorded as used in tobacco factories in Australia amounted to 24 million kg, of which 13 million kg was of local origin. The balance was imported, chiefly from the United States of America.

COTTON

Final payments under the *Raw Cotton Bounty Act 1963-1966* were made in 1971. For further details see Year Book No. 59 and earlier issues.

FRUIT

Apples and pears

The *Australian Apple and Pear Corporation Act 1973*, which was proclaimed on 1 September 1974, provided for the establishment of an Australian Apple and Pear Corporation which replaced the Australian Apple and Pear Board.

The Corporation consists of nine part-time members (an independent Chairman, four members to represent growers, three members with special qualifications and one member to represent the Australian Government) who are appointed for a period of three years. The Australian Apple and Pear Board's overseas representative in London has been retained by the corporation.

Export control and regulation functions of the previous Apple and Pear Board have been absorbed by the Corporation. It also has been provided with a much wider role, e.g. powers to trade under certain circumstances, to charter shipping for such trade and, subject to Government approval, to borrow funds for trading operations. In addition, it has important functions in promotion and research in both fresh and processed apple and pear products.

Early in October 1971 the Government approved a stabilisation plan for the export of apples and pears 'at risk', with an estimated Australian Government liability of \$10 million over five years, commencing with the 1971 season. The plan establishes average seasonal returns (including the returns from forward sales) for each variety, which are then compared with the agreed support price for each variety and the extent of the deficiency or surplus is determined. The Industries Assistance Commission will conduct an inquiry into the Apple and Pear Industry (incorporating Fruitgrowing Reconstruction) in 1974 and early 1975.

The Fruitgrowing Reconstruction Scheme

The Fruitgrowing Reconstruction Scheme, which commenced on 14 July 1972, provides \$4.6 million to assist fruitgrowers who are in financial difficulties to remove some or all of their fruit trees and either leave the industry or put the land to other use. It is regarded as an extension of the Rural Reconstruction Scheme; fruitgrowers may receive assistance under both schemes.

A fruitgrowing industry may qualify for assistance under the Scheme if its trees take at least five years to mature, have a commercial bearing life of at least ten years, and produce fruit of which there is a chronic over-supply. The Scheme applied initially to the canning peach, canning pear, fresh apple and fresh pear industries. In March 1973 it was extended to include the canning apricot industry and provision exists for its extension to any fruitgrowing industry which meets the above criteria.

A grower is eligible to apply for assistance under the Scheme if the Authority is satisfied that the number of trees which he has, of the kind that qualifies for assistance, constitutes a commercial operation.

Two forms of assistance are offered:

Clear fell for the grower who is predominantly a fruitgrower and who is in severe financial difficulties and intends to clear fell his orchard and leave the fruitgrowing industry.

Partial fell for the grower who does not have adequate resources to withstand the short term effects on his economic viability of removing the trees without assistance; the surplus of the horticultural commodity concerned is threatening the long term viability of his property; and where the Authority considers the enterprise has sound prospects of long term commercial viability after removal of the surplus trees and using the land for other purposes.

Assistance is provided in the form of a loan which is converted to a grant after 5 years provided the grower honours his undertaking not to replant with specified trees within that period. Specified trees are those upon which assistance was paid. The maximum rate of assistance per acre is \$350 for fresh fruit and \$500 for canning fruit. Average rates in each State must not exceed \$250 for fresh or \$350 for canning fruit.

The closing date for applications for assistance was originally 30 June 1973. However, it was extended to 30 June 1974 and a further extension to 31 December 1975 has been agreed to. To 30 June 1974 \$2.3 million had been approved to assist over 700 fruitgrowers.

Canned Fruit

The overseas marketing of canned fruit is regulated by the *Canned Fruits Export Marketing Act* 1963–1970. Under this Act the Australian Canned Fruits Board sets terms and conditions for overseas sales. All exporters must hold an export licence authorised by the Minister for Agriculture on the recommendation of the Board. The Board comprises representatives of the Australian Government (one), co-operative canners of deciduous fruit (three), proprietary canners of deciduous fruit (three), pineapple canners (one) and growers of deciduous canning fruit (three). The Board maintains a London office. The *Canned Fruits Export Charges Act* 1926–1966 provides for a levy on exports to meet the Board's expenses, which include contributions to overseas publicity connected with the canned fruit industry. In 1963 an excise duty was imposed by the *Canned Fruits Excise Act* 1963 on canned deciduous fruit entered for domestic consumption, and the proceeds of the duty are made available to the Board.

In 1959 the Australian Canned Fruit Sales Promotion Committee was established to promote the sale of canned deciduous fruit on the home market and overseas. The operations of the Committee are financed by a levy on fruit accepted by the canneries for the production of canned fruit. The Committee comprises representatives of growers and processors of canning fruit and a representative of the Australian Government.

DRIED VINE FRUITS AND WINE

The *Dried Vine Fruits Stabilization Act* 1971 (for details of the first Dried Vine Fruits Stabilization Scheme, which expired with the disposal of the 1968 crop, see Year Book No. 55, page 877, and earlier issues). A referendum of eligible dried vine fruit producers was held in September 1971 concerning a new five-year stabilisation plan for the dried vine fruits industry. The result of this referendum was that growers were in favour of the introduction of a new plan. Accordingly, legislation was enacted in December 1971. The plan operates as from the 1971 season for a period of five years. The Industries Assistance Commission conducted an inquiry into the Dried Vine Fruit industry (incorporating Fruit Growing Reconstruction) in 1974 and early 1975.

The *Dried Fruits Export Control Act 1924-1973*. For details of the Dried Fruits Export Control Act see Year Book No. 55, page 877, and earlier issues.

The *Wine Overseas Marketing Act 1929-1966* was introduced to place the overseas marketing of wine on an orderly basis. The Australian Wine Board, consisting of representatives from wineries and distilleries, grape growers and the Australian Government, supervises the sale and distribution of Australian wine exported and recommends conditions under which export licences should be issued. The Board also engages in wine publicity and trade promotion activities both in Australia and overseas. In London the Board maintains an Australian Wine Centre, which is a medium for promoting interest in Australian wines and brandy. It is also a retail shop for the sale of these products. The *Wine Grapes Charges Act 1929-1969* provides for the imposition of a levy on all grapes used in Australia for the manufacture of wine, brandy and spirit used for fortifying wine. The proceeds of the levy are used to meet the Board's projects in Australia and overseas and to defray the administrative expenses of the Board, which has no other source of income.

Livestock and livestock products

SHEEP

Exports and imports of sheep

The movement of sheep to and from Australia is governed under Customs regulations. Exports of both breeding and slaughter sheep are subject to the provisions of a permit from the Department of Agriculture. For most breeds, these permits are freely granted. However, the export of breeding merinos was prohibited in the mid-1930's and this ban has continued on the export of merino ewes, semen and fertilised ova. There has been a partial relaxation on the export of merino rams in recent years, whereby up to 300 merino rams could be purchased for export each year at nominated public auctions. In February 1973 the Government reimposed the total ban on the export of merinos to any country except New Zealand pending a referendum of woolgrowers on the question of whether the export of merino rams and merino semen should be permitted and if so, whether exports should be restricted or unrestricted.

A voluntary poll of woolgrowers was held during October/November 1973 and a majority of voters favoured a continuing prohibition on the exports. Of the 123,000 persons eligible to vote 47.6 per cent returned ballot papers. Of the votes admitted to the count: 17 per cent voted for unrestricted exports, 23.3 per cent voted for restricted exports and 58.5 per cent voted for total prohibition on exports (1.2 per cent of votes were rejected as informal). The Government has implemented the view of those who voted at the referendum. A complete prohibition now exists on the export of all merino rams, ewes, semen and fertilised ova, to countries other than New Zealand.

Since June, 1958 there has been a prohibition on the imports of sheep (which is still operative except for sheep imported from New Zealand) to protect the Australian sheep industry from the introduction of exotic diseases, such as "blue-tongue".

WOOL

The Australian Wool Industry Conference

This body was formed by woolgrowers in October 1962 to meet the need for an organisation with sufficient authority to speak on behalf of the woolgrowing industry as a whole. It is not a statutory body and consists of twenty-five members each from the Australian Woolgrowers' and Graziers' Council and the Australian Wool and Meat Producers' Federation. The fifty member conference is presided over by an independent chairman.

The Conference makes recommendations to the Australian Government on policy matters concerning the wool industry. Under the *Wool Industry Act 1972-1973* it is the responsibility of the Conference to nominate woolgrower representatives for appointment to the Australian Wool Corporation. Under the Wool Tax Acts (see page 581) the Conference is also responsible for recommending to the Australian Government what rates of levy should be paid by woolgrowers to finance the activities of the Wool Corporation and the wool research program.

Committee on Wool (Randall Committee)

In October 1971 the Australian Government appointed a committee chaired by Sir Richard Randall, former permanent head of the Treasury, to report on the situation and outlook of the Australian Wool Industry. The report of the Committee on these matters was presented to the Prime Minister on 16 May 1972.

In March 1972 the Australian Wool Industry Conference submitted to the Australian Government a proposal for;

- (i) a revised structure for the management of the industry's affairs through the amalgamation of the Australian Wool Board and the Australian Wool Commission into a single wool authority, and
- (ii) an integrated marketing system, involving a plan for acquisition of the Australian clip and influencing all of the activities bringing wool from the raw material stage to the ultimate consumer.

The Government asked the Committee to examine this proposal. The Committee presented the final report on this examination on 29 May 1972.

A report on all the investigations and findings of the Committee was released publicly in August 1972. On the A.W.I.C. proposal the Committee viewed the first part favourably but considered that some aspects of the acquisition proposal needed further clarification.

Australian Wool Corporation

Following the Australian Wool Industry Conference submission and the report of the Randall Committee (*see above*) the Australian Wool Corporation was established under the *Wool Industry Act 1972* and came into operation on 1 January 1973. The Corporation took over the functions of both the Australian Wool Board and the Australian Wool Commission which ceased to operate on that date.

The Corporation consists of nine members, including a full time Chairman. The Chairman is appointed for a period of five years with the other part-time members being appointed for a period of three years. Of the eight other members, four represent Australian woolgrowers, one represents the Australian Government and three are members with special qualifications who have experience in the marketing, processing or manufacture of wool or wool products or in commerce, finance, economics or science. All members including the Chairman are appointed by the Minister for Agriculture, the woolgrower representatives on the nomination of the A.W.I.C. and the three members with special qualifications after consultation with the A.W.I.C.

The functions of the Corporation, which were inherited almost directly from the Wool Commission and Wool Board (*see below*) relate to wool marketing, wool use promotion, wool testing, wool research and the management of wool stores. In addition the Corporation is required to enquire into methods of marketing wool and to report on matters relating to marketing. The Corporation established a group to investigate wool marketing including the proposals for acquisition. A comprehensive report on wool marketing was released on 17 January 1974 in which the Corporation recommended the adoption of procedures aimed at stabilising wool prices and regulating availability. The central recommendation of the report is that the Corporation acquire ownership of all wool for export. The proposal has been submitted by the Corporation to the Australian Government and the wool industry for their detailed examination.

During the 1974-75 season the Corporation will operate a minimum reserve price scheme and will have power to trade in wool and regulate its supply. Funds up to \$150 million for the minimum reserve price operation will be provided by the Government on condition that woolgrowers contribute a 5 per cent levy on proceeds from sale of shorn wool. The Government's offer was accepted by the A.W.I.C. on behalf of woolgrowers.

Funds for the Corporation activities other than its reserve price functions are provided by both woolgrowers, through a levy on shorn wool proceeds (*see below*), and the Australian Government. Reserve price activities are supported by an administrative levy on wool sold at auction, with funds for wool trading activities coming from accumulated funds inherited from the Australian Wool Commission and from credit facilities established with the trading banks.

Australian Wool Board

The Australian Wool Board which was constituted under the *Wool Industry Act 1962-1970* ceased to function on 1 January 1973 when the Australian Wool Corporation (*see above*) commenced operations.

For details of the Australian Wool Board *see* Year Book No. 58, page 800.

Australian Wool Commission

The functions of this body, which began actual operation in November 1970 under the *Wool Commission Act 1970*, were taken over by the Australian Wool Corporation on 1 January 1973. For details of the Commission's activities *see* Year Book No. 58, pages 802-3.

Wool levy

Since 1936 a statutory levy has been collected from woolgrowers to finance wool promotion activities. The initial rate of 5c a bale was increased at the request of woolgrowers to 20c a bale in 1945 and 40c a bale in 1952, the latter rate continuing until 1960. Further details regarding the operation of this levy prior to 1957 appear in Year Book No. 48, page 978.

Under legislation passed in 1957 provision was also made for the payment by woolgrowers of a contribution for wool research which was fixed at 20c a bale. In 1960 the wool promotion levy was raised to 50c a bale, and the following year it was increased further to \$1 a bale. The operation of this rate was subsequently extended for 1962-63 and 1963-64.

On 1 July 1964 the basis for collecting the woolgrowers' combined levy for wool promotion and research was changed from a flat rate per bale to a percentage deduction from the gross value of shorn wool sold. A maximum rate of 2 per cent was fixed, but provision was made for a lower rate to be prescribed, if appropriate. For 1964-65 the rate was set at 1.875 per cent, which involved a substantial increase in payments by woolgrowers for promotion (from \$1 per bale to the equivalent of about \$2.70 per bale), while the research component of the levy was left unaltered at 20c per bale. In 1965-66 the levy was set at 2 per cent and it remained at the maximum rate till 1969-70. From 1 August 1970, the rate of levy was reduced to 1 per cent.

Following agreement between the Australian Wool Industry Conference and the Government on overall funding of wool research and promotion activities, the rate of the levy for 1973-74 was raised to 2.4 per cent of the gross proceeds of shorn wool and for 1974-75 to 2.75 per cent. These rates, however, include a loading for administrative expenses of the Wool Corporation.

The imposition and collection of the combined levy from woolgrowers is governed by six complementary Acts, the *Wool Tax Acts (Nos. 1 to 5) 1964-1973* and the *Wool Tax Administration Act 1964-1966*.

Australian Government's contributions to wool research and promotion

In 1945 the Australian Government commenced contributing on a statutory basis to wool research. Initially the contribution was at the rate of 20c a bale, but this was doubled in 1957 to 40c a bale. At this rate the Australian Government contributed about \$2 million to wool research in 1965-66, and a similar sum was provided in 1966-67.

Prior to 1964-65 the Australian Government had not contributed to wool promotion. However, following representations made by the Australian Wool Industry Conference, the Government undertook to provide assistance to the Australian Wool Board in financing its commitment to the greatly expanded wool promotion program of the International Wool Secretariat. The expanded wool promotion program, announced by the Secretariat, envisaged an increase in the Wool Board's annual contribution to overseas wool promotion campaigns from the then level of \$5 million to about \$20 million.

From 1 July 1964 the Australian Government undertook to match on a \$1 for \$1 basis any increase in contributions by woolgrowers for wool promotion in excess of the levy of \$1 a bale then in force, and the Wool Industry Conference agreed to increase the growers' levy to the equivalent of about \$2.70 a bale, which resulted in a Government commitment of about \$1.70 a bale. In aggregate this commitment entailed an Australian Government contribution for promotion of about \$8 million a year. This arrangement operated until 30 June 1967.

During 1967 the Wool Industry Act was amended following negotiations between the Executive of the Australian Wool Industry Conference and the Government. The amendment provided for a Government contribution for wool research and promotion during the three years 1967-68 to 1969-70 on a \$1 for \$1 basis matching woolgrowers' contribution by levy, to a maximum of \$14 million in any one year. It provided for the grower levy and the Government grant to be apportioned annually between wool research and promotion by the Minister for Primary Industry after considering the recommendations of the Australian Wool Industry Conference. No change occurred in the legislation providing for the payment by woolgrowers of a levy at a rate not exceeding 2 per cent per annum.

When arrangements for Government financial support for wool research and promotion expired on 30 June 1970, the Government increased its contributions for these activities to an average of \$27 million a year for each of the three years 1970-71 to 1972-73. At the same time, as mentioned above, the levy on woolgrowers was reduced from 2 per cent to 1 per cent of the gross proceeds from the sale of shorn wool.

For 1973-74, pending a Government review of the programming and funding of wool research and promotion, the overall expenditure of \$43.8 million for wool research and promotion was financed by a Government grant of \$22 million and by revenue from the Wool Tax—2.4 per cent

of the gross proceeds from the sale of shorn wool. Following its review of the funding of wool research and promotion, the Government decided to provide one-half of the cost of the approved wool research and promotion programs. In the subsequent two years it will support three-quarters of the cost of the research programs and one-quarter of the promotion programs. This will involve Government contributions of \$22 million in 1974-75, \$20 million in 1975-76, and \$21 million in 1976-77.

Australian Wool Marketing Corporation Pty Ltd

The functions of this body, which began actual operations on 1 July 1970 were taken over by the Australian Wool Commission (*see above*) in November 1970. For details of the Marketing Corporation *see* previous issues of the Year Book.

Emergency financial assistance for woolgrowers

In the 1970-71 Budget an amount of up to \$30 million was provided for emergency assistance to woolgrowers to offset to some extent the decline in wool income resulting from the drastic slump in wool prices between 1968-69 and 1969-70. About \$21.5 million was paid out in grants to over 21,000 woolgrowers during 1970-71 and 1971-72.

Wool Deficiency Payments Scheme

This scheme was initially introduced for the 1971-72 season, to give woolgrowers a guaranteed price for their wool clip. It was subsequently extended for a further period of twelve months. The operative provisions of the legislation lapsed at 30 June 1973. For details of the Wool Deficiency Payments Scheme *see* Year Book No. 58, page 803.

Objective measurement of wool

In 1969 the Australian Wool Board, through its Objective Measurement Technical Committee and Objective Measurement Policy Committee, began investigations into the objective measurement of wool and the significance of this development for the marketing of the Australian wool clip.

In 1970 the Australian Government provided \$1.5 million for work on research and implementation of objective measurement techniques.

The findings of the Committees were presented to the Board in December 1972, and point to significant changes from the traditional processes involved in every stage of the marketing process. Savings of several dollars per bale could be achieved in the marketing of wool, especially through the separation of handling and selling centres of wool. The Committee noted that further refinements and developments in techniques would occur.

The Australian Department of Agriculture has established a monitoring unit, as recommended by the Committee, to ensure the maintenance of standards and accuracy in sampling and measurement of wool for sale by sample and objective measurement. The unit, the *Australian Wool Measurement Standards Authority*, operates a voluntary registration scheme for wool testing laboratories and sampling sites. Prior to registration, laboratories and sampling sites are closely inspected by the Authority's officers to ensure they meet the high standards required. After registration, continuing surveillance is employed to ensure the required standards are maintained.

MEAT

Australian Meat Board

The Australian Meat Board, which was re-constituted under the *Meat Industry Act 1964-1973*, is the body responsible for controlling the external marketing of Australian beef, mutton and lamb. Powers and membership of the Board prior to 1964 are set out on page 801, Year Book No. 40. Following its reconstitution it consisted of five members representing meat producers, two representing meat exporters, one representing the Australian Government, and an independent Chairman. The Meat Industry Act was amended in 1969 to provide for the appointment of an additional member to represent meat producers. The Board's primary function is to ensure that Australian meat exports are marketed in a manner which will safeguard the long-term interests of the Australian meat industry.

The Board regulates overseas marketing of Australian meat by means of an export licensing system. It has power of control over the kinds of meat that may be exported by licensed exporters to particular places, or to particular agents and representatives. The Board also has power to undertake measures to promote the sale and consumption of meat both in Australia and overseas, and it may purchase and sell meat in its own right for the purpose of market development. However, the

exercise of this power is limited to activities aimed at meeting special marketing problems or circumstances which preclude the effective participation of private traders. The Board may also purchase and sell meat, with the approval of the Minister for Agriculture, for the purpose of administering any international arrangements to which Australia may be a party.

Meat research schemes

In November 1965 the Australian Parliament passed legislation providing for the extension of the cattle and beef research scheme to cover beef, mutton and lamb research. Details of the beef research scheme were set out on page 1050, Year Book No. 51. Under the new legislation the Cattle and Beef Research Committee was re-constituted as the Australian Meat Research Committee, its powers and functions being similar to those of the former Committee extended to include mutton and lamb research. The Meat Research Committee consists of twelve members—seven meat producer representatives, the Chairman of the Australian Meat Board (Chairman), one representative from the universities engaged in meat research, the Commonwealth Scientific and Industrial Research Organization, the Australian Agricultural Council, and the Australian Department of Agriculture. The new Committee came into being in March 1966 and the Cattle and Beef Research Committee ceased to exist from that date.

The scheme is financed from the Livestock Slaughter Levy (*see below*). The Australian Government makes a matching contribution on a \$1 for \$1 basis to meet expenditure on research. The research is conducted by such bodies as the universities, C.S.I.R.O., State Departments of Agriculture and the Bureau of Agricultural Economics.

The Minister for Agriculture approved a beef research program of \$2,707,144, and a mutton and lamb research program of \$1,264,614 for 1973-74.

The Livestock Slaughter Levy

The *Livestock Slaughter Levy Act 1964-1973* imposed a levy on all cattle (over 90 kg dressed weight), sheep and lambs slaughtered within Australia for human consumption. These levies operated from 1 August 1964 and have replaced the charge imposed on meat exports and also subsumed the cattle levy for beef research purposes imposed in 1960 (*see page 909, Year Book No. 51*). In November 1968 legislation was passed amending the Act to provide for an additional levy to finance service and investigation activities relating to meat processing. The present legislation (the *Livestock Slaughter Levy Act 1964-1971*) now provides three elements in the levy for each class of livestock—an amount to finance meat research; an amount to finance the operations of the Australian Meat Board; and, an amount to finance service and investigation activities relating to meat processing. The first two elements are paid by producers while the third element is paid by meat processors.

Under the Act the total levy may not exceed 75.0c a head for cattle or 7.5c a head for sheep and lambs. The amount levied for research may not exceed 25.0c a head for cattle or 3.3c a head for sheep and lambs while the amount for service and investigation activities relating to meat processing is set for the period of its operation at 1.0c a head for cattle and 0.1c a head for sheep and lambs. The present operative rate for cattle is 46.0c (25.0c for research; 20.0c to the Australian Meat Board; 1.0c for service and investigation) and for sheep and lambs, 3.85c (1.75c for research; 2.00c to the Australian Meat Board; 0.10c for service and investigation).

The Meat Export Charge

The *Meat Export Charge Act 1973* imposes a charge on the exports of meat. A charge of 1.0 cents per lb is imposed on exports of meat and edible offals of cattle, sheep, lambs, goats and pigs and the revenue is to recoup to the Government the cost of export meat inspection. A further 0.6 cents per lb is imposed on beef and veal exports in order to recover to the Government the cost of the National Brucellosis and Tuberculosis Eradication Campaign.

United Kingdom long-term purchase arrangements

Details of the long-term meat contracts with the United Kingdom from 1939 to 1952 and of the Fifteen Year Meat Agreement (1952-1967) are given on page 710, Year Book No. 41 and in earlier issues. In September 1953 the trade in meat between the United Kingdom and Australia reverted to private traders. The main features of the arrangements were given in Year Book No. 47, page 960. Details of minimum prices operating and deficiency payments received in recent years under private trading appear in Year Book No. 48 (page 973) and No. 50 (page 1068).

On 30 September 1967 the Fifteen Year Meat Agreement expired, and no new agreement has been negotiated. Australia retained duty-free entry for meat until 1 July 1971 when a variable levy system for beef and veal imports and duties on mutton and lamb were introduced by the United Kingdom Government in preparation for entry into the European Economic Community (E.E.C.).

The United Kingdom became part of an enlarged E.E.C. in 1973 and will progressively adopt the mechanism of the E.E.C. Common Agricultural Policy (C.A.P.) over the period up to 1977. Under the C.A.P., beef and veal imports are mainly controlled by a system of variable levies. At present the C.A.P. does not apply to mutton and lamb but the United Kingdom will gradually increase its duties on mutton and lamb until the level of the full E.E.C. duty (20 per cent) is reached in 1977.

Lamb Guarantee Scheme

The Australian Meat Board, under the scheme, guaranteed exporters a minimum price on all lambs approximately 16 kg and under shipped to the United Kingdom. The scheme operated from 1962-63 lamb export season until it was discontinued by the Board in March 1972. Details of the scheme are shown in Year Book No. 58, page 811.

United States of America-Australia Meat Agreement

In February 1964 the Governments of Australia and the United States of America concluded an agreement for the regulation of beef, veal and mutton exports from Australia to the United States with the object of promoting the orderly development of the trade in these classes of meat between the two countries. (Details of the Agreement were given on page 820 of Year Book No. 56). In June 1970, the United States advised that it was terminating the Agreement at the end of 1970. Legislation enacted by the United States Congress in 1964, details of which were given in previous issues of the Year Book, provides for restrictions on imports of fresh, chilled and frozen beef, veal, mutton, and goatmeat from all sources if such imports are estimated by the United States Secretary of Agriculture to exceed a predetermined figure (the trigger point) calculated by a formula in the legislation. Should quotas be necessary the total permissible imports would be set some 10 per cent below the trigger point. Until 1968 the estimate of imports did not exceed the trigger point and quotas were not necessary. However, late in that year it appeared likely that quotas would be triggered and to avoid this all major suppliers agreed to restrain shipments. The total restraint level was set approximately halfway between the quota level and trigger point. A similar situation arose in 1969 and 1970 and restraints again operated. However in June 1970 the estimate of imports exceeded the trigger point and the United States President suspended the operation of quotas and announced new higher restraint levels for all major suppliers. In 1971 the United States President exercised, as in 1970, his powers under the legislation and announced that the operation of quotas would be suspended as suppliers had agreed to enter into a restraint agreement with the United States to keep the import level to 517,900 tons. In June 1972, the President announced that the restraint arrangements for 1972 had been suspended for the remainder of the year in an effort to control increases in meat prices in the United States. Restraints have been suspended since that time, but the situation is still subject to quarterly review.

Pig Industry research

A general description of research commenced in 1971 into the Australian pig industry appears in the section, The Pig Industry page 818.

POULTRY INDUSTRY

Stabilisation scheme for the egg industry

An Australia-wide stabilisation type of scheme for the egg industry has been in operation since 1 July 1965. The principal features of the scheme are embodied in three Acts—*Poultry Industry Levy Act 1965-1966*, *Poultry Industry Levy Collection Act 1965-1966*, and *Poultry Industry Assistance Act 1965-1966*.

The scheme provides for the imposition of a levy on hens over six months of age kept for commercial purposes. The money obtained from the levy is mainly used to meet trading losses on surplus eggs. Previously, returns to producers were equalised by State Egg Boards, who imposed an equalisation deduction to cover deficits which resulted from sales to overseas markets.

In determining the rate of the hen levy, the Minister for Agriculture is required to take into consideration any recommendations by the Council of Egg Marketing Authorities of Australia (which consists of all members of the State Egg Marketing Boards) and is precluded from prescribing a rate in excess of such recommendations. The maximum rate of levy permitted under the legislation is \$1 per hen per annum. The levy is payable fortnightly by the owner of the hen. The levy operated at its maximum in 1972-73 and 1973-74. The fortnightly rate of levy in accordance with the recommendations of the Council of Egg Marketing Authorities of Australia was 4 cents for 1972-73 and

1973-74. As the maximum of \$1 per hen was reached each year after twenty-five fortnights, no levy was imposed for the last prescribed days in 1972-73 and 1973-74.

Exemptions from payment are granted on the first twenty hens in each flock and also on a substantial proportion of broiler breeder hens. The eggs produced by broiler breeder hens which are not used for hatching determine the proportion of those hens on which the levy becomes payable in accordance with a formula incorporated in the legislation.

By arrangement between the Australian and State Governments, the State Egg Boards collect the levy due in each State from individual producers and remit the total amount to the Australian Government (the Department of Agriculture collects the levy in the Australian Capital Territory). The Australian Government pays into the Poultry Industry Trust Fund amounts equal to the receipts obtained from the hen levy. These amounts totalled \$11,621,137 in 1973-74 (\$12,925,825 in 1972-73). Payments from the Fund are made to the State Governments for financial assistance to the poultry industry, and are authorised by the Minister for Agriculture, after consideration has been given to the recommendations by the Council of Egg Marketing Authorities of Australia. Payments from the Trust Fund totalled \$11,532,302 in 1973-74 (\$13,656,628 in 1972-73).

Research

The *Poultry Industry Assistance Act* 1965-1966 makes provision for expenditure for research purposes to be allocated from the Poultry Industry Trust Fund.

The Act also provides for a contribution limited to \$100,000 each year from the Australian Government to support poultry research on dollar for dollar matching basis with industry funds. There is no restriction on the amount which may be expended from the Fund for research.

Research projects are recommended by the Council of Egg Marketing Authorities of Australia for approval by the Australian Minister for Agriculture. Expenditure may be approved for scientific, technical or economic research, the publication of reports thereon, the training of persons for research, and the dissemination of information and advice on scientific, technical or economic matters.

Chicken Meat Research

In June 1969, a research scheme for the chicken meat industry was established along lines similar to those operating for the wool, wheat, dairy, meat, tobacco and poultry industries. The operative Acts are the *Chicken Meat Research Act*, 1969, the *Meat Chicken Levy Act*, 1969 and the *Meat Chicken Collection Act*, 1969. This legislation provides for a levy of one-tenth of a cent on each meat chicken hatched before 1 July 1972 and, thereafter, for a levy at a prescribed rate not exceeding one-quarter of a cent per meat chicken hatched. Hatcheries, hatching less than 20,000 meat chickens per annum, are exempt from the levy. The legislation also provides that the industry levy be paid into a Trust Account and that research expenditure therefrom be matched on a \$1 for \$1 basis by the Australian Government. On this basis, it is estimated that funds currently available for research will be \$252,354 for 1973-74.

Marketing of eggs

Details of the *Egg Export Control Act* 1947-1966 were given in earlier issues of the Year Book (*see* No. 47, page 997).

DAIRY PRODUCTS

Dairy Industry Stabilisation Fund

Amounts realised on exports of butter and cheese were, in 1948-49 and 1949-50, in excess of the f.o.b. equivalent of the then guaranteed return and were credited to the Dairy Industry Stabilisation Fund, which was established in July 1948 for the purpose of stabilising returns from exports. During 1951-52 the Stabilisation Fund met the deficiency in respect of all exports which did not earn sufficient to meet the basic return to the factory. From 1 July 1952 to 30 June 1957 it was available to the industry to be used, in whatever manner it considered desirable, to make good any deficiency in respect of all exports other than the 20 per cent provided for under the Australian Government's five-year stabilisation plan. The Act was amended in 1957 to enable the Board to use the fund for such other purposes as are approved by the Minister for Agriculture, and this amendment was later extended by the *Dairying Industry Act* 1967 to the present time. The balance of accumulated funds in the Dairy Industry Stabilisation Fund at 30 June 1972 totalled approximately \$6,376,200. The major portion of the fund represents capital and other investments in milk recombining plants now established by the Board in Bangkok, Cambodia, Djakarta and Manila.

Processed milk products. As part of the sixth five-year Stabilisation Plan the Government provided, under the *Processed Milk Products Bounty Act 1962-1972*, for the payment of a maximum amount of \$800,000 as a bounty on exports of processed milk products in each year. Details of earlier bounties are given in Year Book No. 58, page 818. In July 1973 it was decided to phase out the bounty on the exports of processed milk products over the two-year period ending 30 June 1975.

Whole milk. In addition to the bounties referred to below, the Australian Government subsidised the production of whole milk consumed directly from 1943-44 to 1948-49. Details of the amounts distributed during each year will be found in Year Book No. 38, page 1031.

Australian Government bounties and stabilisation plans

Butter and cheese. Under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942, the Australian Government has provided bounties on milk supplied for the manufacture of butter and cheese. Bounties were paid on a seasonal basis prior to 1 April 1946, but from that date have been on a flat rate basis. Bounties are distributed by the Commonwealth Dairy Produce Equalisation Committee Ltd through factories to milk and cream producers by payments on butter and cheese manufactured. Details of the three five-year stabilisation plans which operated up to 30 June 1962, will be found in Year Book No. 49, page 1084. Information regarding the plan which operated during the five years ended 30 June 1967 appears in Year Book No. 52, page 961 and details of the plan which concluded on 30 June 1972 are given in Year Book No. 58, page 818.

The sixth five-year stabilisation plan, which came into operation on 1 July 1972, provided for the continuation of financial assistance on butter and cheese production and an export bounty on processed milk products. In July 1973 the Australian Government decided to phase out financial assistance provided under the stabilisation plan over the two-year period ending 30 June 1975, and instead to place greater emphasis on adjustment assistance for the dairy industry. For details of the sixth and earlier stabilisation plans see Year Book No. 59, and earlier issues of the Year Book.

The bounty on butter and cheese for the 1973-74 season was \$18 million and for the 1974-75 season the bounty is \$9 million and this will be the final payment of financial assistance geared directly to output.

Marginal Dairy Farms Reconstruction Scheme

The Marginal Dairy Farms Reconstruction Scheme was introduced in July 1970 to operate for a period of four years. It provided funds up to a maximum of \$25 million to State Governments to purchase marginal dairy farms from producers wishing to leave the industry. The land acquired was sold on favourable terms to neighbouring farmers so as to build up their holdings to an economic size. When the scheme expired in July 1974, 1,136 dairy farms had been offered to the States for acquisition; purchase and subsequent sale of 576 had been arranged; 348 applications had been rejected; and 205 applications had been withdrawn or had lapsed. The cost of purchase amounted to \$14.9 million. The scheme has now been replaced by the Dairy Adjustment Program.

Australian Dairy Adjustment Program

The major elements of the Dairy Adjustment Program include a comprehensive range of assistance to enable non-viable dairy farmers to build-up their properties into sound economic units; interest-free loans to help suppliers change over to refrigerated bulk milk delivery with concurrent assistance as necessary to factories; and relocation assistance to displaced dairy farmers and dairy factory workers.

The program, which is estimated to cost \$28 million over a two-year period to 30 June 1976, will be operated by the States. The Industries Assistance Commission has been asked to report on what assistance should be provided to the dairy industry after 30 June, 1976.

Marketing of dairy products

The export trade is regulated by the terms of the *Australian Customs Act 1901-1974* and the *Australian Commerce (Trade Descriptions) Act 1905-1973* and regulations thereunder. This legislation requires that the true trade descriptions, etc., be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

Details of the *Dairy Produce Export Control Act 1924-1973* and of the Australian Dairy Produce Board constituted under it were given in earlier issues of the Year Book (*see* No. 48, pages 999-1000). The Act was amended in 1972 to clarify the general provisions enabling the Board to expand existing markets and secure new ones and to provide the Board with specific power to participate in commercial ventures as a means of expanding existing markets or securing new ones. The administrative expenses of the Australian Dairy Produce Board and other sundry expenditure were met from the proceeds of a levy imposed by the *Dairy Produce Export Charges Act 1964* (*see* Year Book No. 51, page 1070). In 1965 this Act, together with the *Dairy Produce Levy Act 1958*, was replaced by the *Butter Fat Levy Act 1965-1972* (*see* below).

Equalisation schemes

Reference is made to the butter and cheese equalisation schemes in Year Book No. 48, pages 998-9. Particulars of the returns realised on local and overseas sales and of the average equalisation rate for the years ended June 1968 to 1974 are given on page 815 of this issue. Details are also given on page 814 of the wholesale prices of butter and cheese for home consumption.

An equalisation scheme for casein similar to that for butter and cheese has been operated since 1952 by the Commonwealth Dairy Produce Equalisation Committee Ltd. Average realisations per tonne under the scheme were \$487.93 in 1970-71, \$570.60 in 1971-72, and \$678.00 in 1972-73. For 1973-74 the current interim rate is \$670.00 per tonne. (Details of returns for earlier seasons are given in previous issues of the Year Book.)

From 1 July 1970 a skim milk powder equalisation scheme was commenced by the Commonwealth Dairy Produce Equalisation Committee Ltd. For 1970-71 the final rate was \$211.181 a tonne and for 1971-72 \$281.582 a tonne. For 1972-73 the current rate is \$332 a tonne and for 1973-74 the interim rate is \$424 per tonne.

Statutory support for the equalisation scheme was provided by legislation passed by Parliament during 1970 and ratified by producers at a referendum held in February 1971. The legislation consists of the *Dairying Industry Equalisation Act 1970*, the *Dairying Industry Levy Act 1970*, and the *Dairying Industry Levy Collection Act 1970*. (*See* Year Book No. 57, page 818.)

The basic element of the legislation is the establishment of a fund by way of a levy on the production of butter, butteroil, cheese, casein and such other dairy produce as may be prescribed to provide the necessary finance for equalisation payments. The legislation has been designed to permit the imposition of the levy on one product or a number of products as circumstances warrant. It will not be implemented unless there is a specific need created such as by the withdrawal of an important manufacturer from the present voluntary equalisation scheme.

Extension, research and promotion of the dairying industry

Dairy Industry Extension Grant. An annual grant of \$500,000 to be expended by State Governments for the purpose of promoting improved farming practices in the dairying industry, was first made by the Australian Government for the five years from 1 July 1948. The grant was renewed at the same level until 30 June 1963 when it was increased to \$700,000 per annum. On 1 July 1966, the Dairy Industry Extension Grant became part of the expanded Australian Government Extension Services Grant. Assistance to State agricultural departments for extension services to the dairying industry continue to be maintained and enlarged from funds from this source.

Dairy industry research and sales promotion. At the request of the Australian Dairy Industry Council, legislation was enacted in 1958 to provide for a sales promotion campaign for butter and cheese in Australia and also for research into industry problems (funds for research being matched by Government contributions, *see* below). The legislation provided for levies on the manufacture of butter and cheese (the Dairy Produce Levy) which were initially set at operative rates of 0.104 cents per lb (0.229 cents per kilogram) for butter and 0.052 cents per lb (0.115 cents per kilogram) for cheese, the proceeds being divided equally between research and sales promotion. The operative rates of levy were increased from November 1959 to 0.156 cents per lb (0.344 cents per kilogram) for butter and 0.078 cents per lb (0.172 cents per kilogram) for cheese (the maximum amounts permitted under the legislation) with two-thirds of the funds raised being allocated to sales promotion and one-third to research. In August 1964, the legislation was amended to include butter powder at the same rate as for butter, i.e. 0.156 cents per lb (0.344 cents per kilogram).

In 1965, the Dairy Produce Levy Act was repealed and replaced by the Butter Fat Levy Act which provided for one levy on butterfat used in the manufacture of butter, cheese and related products. The maximum rate of levy was set at 60 cents per cwt (1.18 cents per kilogram) of butterfat, comprising 12 cents (0.24 cents per kilogram) for research, 24 cents (0.47 cents per kilogram) for sales and domestic promotion, and 24 cents (0.47 cents per kilogram) for administration and overseas

promotion. The operative rates of levy for those three categories were initially 8 (0.16 cents per kilogram), 22 (0.43 cents per kilogram) and 20 cents (0.39 cents per kilogram) respectively, i.e. a total of 50 cents (0.98 cents per kilogram).

Following several minor increases, the operative levy rate reached 58 cents per cwt (1.14 cents per kilogram) of butterfat from 1 October 1971. Of this amount, 10 cents (0.20 cents per kilogram) was used for research, 24 cents (0.47 cents per kilogram) for promotion and 24 cents (0.47 cents per kilogram) for administration and overseas market development. Research levies have been collected under Dairying Research Acts (*see* below) since 1 July 1972 and the butterfat levy (maximum and operative) was reduced to 48 cents per cwt (0.94 per kilogram) of butterfat from that date. The sales promotion program has throughout been financed solely from the industry levy.

The table below shows the levies collected for research and sales promotion during the past five years.

**BUTTERFAT LEVY: AMOUNTS COLLECTED FOR
RESEARCH AND SALES PROMOTION**

(\$)

	1969-70	1970-71	1971-72	1972-73	1973-74
Research(a)	413,277	387,088	370,824	(b)	(b)
Sales promotion	908,521	923,494	886,911	858,530	836,412
Total collected(a)	1,321,798	1,310,582	1,257,735	858,530	836,412

(a) Excludes amounts contributed by the Australian Government. (b) Since 1 July 1972, research levies have been collected under Dairying Research Acts 1972 (*see* below).

From 1958 onwards, the Australian Government has contributed one-half of the costs incurred on approved projects included in the program of research, with a maximum contribution of \$1 for \$1 against funds raised by way of levy and allocated to research. The Dairy Produce Research Committee administered the research scheme and made recommendations through the Australian Dairy Produce Board to the Minister for Agriculture.

In February 1972, the Australian Government agreed to industry proposals to broaden the scope of the research levy so that it would apply to all dairy farmers, irrespective of the end-use of the milk or cream produced. Later that year, to implement the new scheme, five Acts were passed: Dairying Research Act; Dairying Research Levy Act; Dairying Research Levy Collection Act; Dairy Produce Sales Promotion Act; Butter Fat Levy Act.

The research levies are payable either on a butterfat or volume basis, according to the normal method of payment to the producer by the dairy factory or authority. The maximum rates of these levies are 12 cents per cwt (0.24 cents per kilogram) of butterfat or 0.04 cents per gallon (8.8 cents per thousand litres) of milk. The operative rates are prescribed by regulation and since 1 July 1972 have been 10 cents per cwt (0.20 cents per kilogram) of butterfat and 0.033 cents per gallon (7.3 cents per thousand litres) of milk. The research scheme came into operation on 1 July 1972 and levies collected amounted to \$486,190 in 1972-73 and \$534,769 in 1973-74.

The 1972 legislation established a separate statutory body, the Dairying Research Committee, to control and administer the research funds. (The sales promotion program continues to be administered by the Australian Dairy Produce Board.) The Chairman of the Board is also Chairman of the Dairying Research Committee.

Allocations from the Dairying Research Trust Account totalled \$844,794 in 1972-73 and \$958,392 in 1973-74. The Australian Government has continued to match research expenditure on a dollar for dollar basis.

THE BEE-FARMING INDUSTRY

Honey Levy

For details of the Honey Levy *see* under Bee-Farming, page 828.

CHAPTER 23

WATER RESOURCES

RESOURCES, UTILISATION AND NATIONAL AND INTERSTATE ASPECTS

Official Year Book No. 51, pages 228–31, contains a description of recent developments in the measurement of Australia's water resources. For information concerning general, descriptive and historical matter *see also* Year Book No. 37, pages 1096–1141.

An article on droughts in Australia appeared in Year Book No. 54, pages 991–6.

For further details on geographical and climatic features determining the Australian water pattern, *see* the chapter Climate and Physical Geography of Australia; on water supply and sewerage in metropolitan areas, cities and towns, the chapter Public Finance; and on the generation of hydro-electric power, the chapter Electric Power Generation and Distribution, of this issue.

A series of maps showing the location of major dams and reservoirs and the various irrigation schemes operating in each of the States may be found on pages 259–65 of Year Book No. 46, and a map showing the extent of known artesian basins throughout Australia is shown on page 273 of Year Book No. 48.

Water resources and their management

Geographic background

General. Water resources are determined by rainfall, evaporation and physical features including soil, vegetation and geology. Chapter 2, Climate and Physical Geography of Australia, contains a detailed description of the climatic features of the country and a brief description of the landforms. In assessing Australia's water resources, dependability and quantity of supply must be considered, as well as amount.

Topography. The major topographical feature affecting the rainfall and drainage patterns in Australia is the absence of high mountain ranges over most of the continent. The Main Divide along the eastern coast is composed of sloping tablelands and uplands which generally do not exceed 1200 metres in altitude, the highest point being Mount Kosciusko at only 2228 metres. The western half of the continent is mainly a great plateau between 300 and 600 metres in altitude, while the interior consists of plains below 200 metres with a marked depression descending to 15 metres below sea level in Lake Eyre. It has been estimated that over half the country's area has a slope of less than one in one hundred.

Drainage. Only one-third of the Australian land mass has direct external drainage to the ocean. This occurs mainly in the east on the coastal side of the Main Divide and inland with the Murray-Darling system which benefits from the better-watered southern highlands. In the west, small watersheds are formed by the Darling Range and the Hamersley and Kimberley plateaux, while in the north the raised rim of the Georgina Basin separates the shorter rivers of the Gulf of Carpentaria coast from the interior drainage of the Barkly Tableland. With the exception of the Murray-Darling system, most rivers draining to the ocean are comparatively short because of the proximity of the highland areas to the coast and, for the same reason, these rivers account for the majority of the country's average annual discharge.

The remaining two-thirds of the country are interior lowlands which exhibit endoreic drainage patterns characteristic of a desert regime, i.e. disconnected ephemeral river systems and terminal salt lakes. In central Australia, each isolated upland has a radiating drainage system which dies out on the surrounding plains, while on the western plateaux, older stream systems have been disrupted by barriers of alluvium or aeolian sand. Surface drainage is totally absent from some arid areas of low relief and pervious cover such as the limestone Nullarbor Plain.

Climate. Australia has an area of almost 7.7 million square kilometres and a latitudinal range of about 3700 kilometres, resulting in climatic conditions ranging from the alpine to the tropical. But two-thirds of this area is arid or semi-arid, a result of its location approximately between latitudes 10°S and 40°S, a zone which contains most of the great deserts of the world. Generally, the northern part of the continent comes under the influence of the Australian-Asian monsoon which results in a summer wet season and a winter dry season, while southern Australia is subject in winter to the rain-producing influences of the great atmospheric depressions of the Southern Ocean. Consequently good rainfalls (over 800 mm annually) occur in the northern monsoonal belt and along the eastern and southern coastal highland areas, which total only 12 per cent of the country's area, while nearly 30 per cent of the land mass receives less than 200 mm per annum.

The effectiveness of the rainfall over most of Australia is greatly reduced by marked alternation of wet and dry seasons, unreliability from year to year, high temperatures and high potential evaporation. Average annual tank evaporation rates increase generally from about 1,000 mm in the temperate south-eastern and south-western coastal areas of mainland Australia to over 3,300 mm in the arid centre; for further details see pages 54-55. In a twenty-year period, on the north-eastern coast, Mackay averaged 1,400 mm of rain per annum, but experienced one year of only 900 mm and another of 3,200 mm, a pattern of variability which is common throughout Australia; see also page 35.

Settlement. The availability of water resources controls, to a large degree, the possibility and density of settlement; and these in turn influence, through production and disposal of waste, the quality of the water. Most early settlements were established on the basis of reliable surface water supplies and, as a result, Australia's population is concentrated along the coast, mainly in the comparatively fertile, well-watered east, south-east and far south-west. As early as 1795, the effect of settlement on water quality was shown when an order was issued forbidding the pollution of the Tank Stream, the only water supply for the infant settlement at Sydney Cove. Fouling of the stream became worse as settlement increased until it was finally abandoned as a source of water in 1826. Today, the major water pollution problems in Australia are associated with the cities, irrigated agriculture and mining activities.

As settlement spread into the dry inland grazing country last century, the value of reliable supplies of underground water was realised and in 1857 the earliest known official investigation of groundwater resources was reported to the Victorian Legislative Assembly. Subsequently, observations of the disappearance of large quantities of the rainfall precipitated on the coastal ranges of eastern Australia led to the hypothesis of the existence of the Great Artesian Basin. Boreholes drilled from 1879 at Killara homestead in north-western New South Wales, at Anna Creek in South Australia and in Queensland at Thuralgoonie and Barcaldine, substantiated this theory. Since then, the waters of the basin have been a major asset to the pastoral industry. Supplies of groundwater have also been essential to the development of the mining industry in remote areas. At Tennant Creek in the Northern Territory, almost all water is drawn from unconsolidated sediments; the Pilbara iron mines in Western Australia depend heavily on water from the alluvium of the Fortescue, de Grey and Yule Rivers; and near Townsville in northern Queensland, groundwater is being used in the treatment of nickel ore from Greenvale. Despite improved conservation and management, full utilisation of surface water resources is within sight in many areas and, as population and standards of living increase, there will be continued pressure to further develop groundwater resources and to improve efficiency through conjunctive use of both ground and surface water resources.

Surface supplies

Distribution and volume. Permanent rivers and streams run in only a small part of the continent and only two-thirds of Australia is regarded as contributing to stream flow. There is practically no flow from the Western Plateau drainage division or from arid parts of other divisions. The total average annual discharge of Australian rivers has been assessed at 345×10^9 cubic metres. This figure comprises 133×10^9 cubic metres measured discharge and 212×10^9 cubic metres estimated for areas where there are generally no gauging records, and is small in comparison with river flows on other continents. In addition, there is a pronounced concentration of runoff in the summer months in northern Australia, whereas the southern part of the continent has a distinct, if somewhat less marked, winter maximum.

Variability of flow. Seasonal conditions are such that large rivers in the north carrying in excess of 30,000 cubic metres per second in high flood may cease to flow altogether in the dry season. Highest recorded annual discharges in many rivers such as the Murray and Burdekin are as much as 300 times the lowest. Even in areas of high rainfall, large variability in flow means that, for local regional development, most streams must be regulated by surface storage. However, in many areas of Australia, evaporation is so great that storage costs are high in terms of yield. Extreme floods, which can be expected over much of Australia, also add greatly to the cost of water storages, since the provision of adequate spillway capacity to ensure safety of the dam is often a major cost item. In some cases, such as the Fitzroy River in north Queensland, flood discharge in one week can exceed the average annual discharge. Dam sites are seldom available to enable such large volumes to be stored, so that rarely can major floods be conserved or controlled to any degree.

Potential development. The total quantity of surface water used or which can be diverted for use from rivers in Australia is about 16×10^9 cubic metres a year. This figure represents about 5 per cent of the total Australian river discharge and does not include the quantity diverted for hydro-electric power generation and other purposes which do not affect the quantity of water available. However, there are many factors which limit potential development to a fairly small fraction of the total runoff, including the great variability of river discharge, high evaporation and lack of sites for storage on many catchments. In the more favourable and more intensively populated south-east, development of surface water in some areas has already reached about 60 per cent of the total resources, which is considered to be close to the feasible limit. On the other hand, there is considerable scope for greater efficiency in water use and, as the cost of obtaining additional supplies increases, it can be expected that more effective use will be made of existing diversions.

Major dams and reservoirs

The table below lists existing major dams and reservoirs (in descending order of size), together with those under construction and those projected, at June 1973. The list is confined to dams and reservoirs with a capacity of 100 mil. cubic metres or more.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA

Name and year of completion	Location	Gross capacity (mil. cubic metres)(a)	Height of wall (metres)(b)	Remarks
EXISTING DAMS AND RESERVOIRS				
Ord (Lake Argyle)	Ord River, near Wyndham, Western Australia	5,679	99	For irrigation and flood mitigation (flood storage above spillway level 30,800 mil. cubic metres) and hydro-electric power generation at later stage.
Eucumbene (1958)	Eucumbene River, New South Wales	4,798	116	Part of Snowy Mountains Hydro-electric Scheme.
Eildon (1927, raised 1955)	Upper Goulburn River, Victoria	3,392	79	Storage for irrigation and hydro-electric power generation.
Hume (1936, raised 1961)	Murray River, near Albury, New South Wales	3,084	51	Part of Murray River Scheme: storage for domestic, stock and irrigation. Hydro-electric power station.
Miena (1967)	Great Lake, Tasmania	2,309	18	Storage for Poatina hydro-electric power station.
Warragamba (Burragorang Reservoir) (1960)	Warragamba River, New South Wales	2,092	137	For Sydney water supply and flood mitigation. Hydro-electric power station.
Menindee Lakes (1960)	Darling River, near Menindee, New South Wales	1,812	18	Part of Darling River water conservation Scheme.
Burrndong (1967)	Macquarie River, near Wellington, New South Wales	1,680	76	For conservation, flood mitigation, and rural water supplies.
Blowering (1968)	Tumut River, New South Wales	1,631	112	Regulates discharges from Snowy Mountains Hydro-electric Scheme stations for irrigation. Hydro-electric power station.
Fairbairn (1972)	Nogoa River, Central Queensland	1,444	49	Storage for Emerald Irrigation Area.
Wyangala (1936, raised 1971)	Lachlan River, New South Wales	1,220	85	Storage for domestic, stock and irrigation purposes. Hydro-electric power station.
Burrinjuck (1927, raised 1956)	Murrumbidgee River, New South Wales	1,032	79	Storage for irrigation. Hydro-electric power station.
Talbingo (1971)	Tumut River, New South Wales	921	162	Part of Snowy Mountains Hydro-electric Scheme.

For footnotes see end of table.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

<i>Name and year of completion</i>	<i>Location</i>	<i>Gross capacity (mil. cubic metres)(a)</i>	<i>Height of wall (metres)(b)</i>	<i>Remarks</i>
EXISTING DAMS AND RESERVOIRS—<i>continued</i>				
Somerset	Stanley River, Queensland .	893	50	Brisbane-Ipswich water supply and flood mitigation. Hydro-electric power station.
Jindabyne	Snowy River, New South Wales	688	72	Part of Snowy Mountains Hydro-electric Scheme.
Lake Victoria	Murray River, near South Australian border in New South Wales	680	..	Improved natural off-river storage; conserves supplies for South Australia.
Lake Echo	Lake Echo, Tasmania	545	19	Storage for Lake Echo, Tungatinah, Liapootah, Wayatinah and Lower Derwent hydro-electric power stations.
Clark (Lake King William) (1949, raised 1966)	Derwent River, Tasmania	540	73	Storage for Tarraleah, Liapootah, Wayatinah and Lower Derwent hydro-electric power stations.
Keepit	Namoi River, near Gunnedah, N.S.W.	426	55	For conservation and irrigation. Hydro-electric power station.
Arthurs Lake	Source of Lake River, near Great Lake, Tasmania	423	17	Part of Great Lake hydro-electric power development.
Waranga	Swamp, near Rushworth, Victoria	411	12	Off-river storage in Goulburn Valley for irrigation.
Tinaroo Falls	Barron River, North Queensland	407	47	Storage for Mareeba-Dimbulah Irrigation Area. Hydro-electricity generation.
Mokoan	Winton Swamp, near Benalla, Victoria	365	10	Storage for irrigation.
Glenbawn	Hunter River, near Scone, New South Wales	361	78	For conservation, irrigation and flood mitigation.
Rocklands	Gleneig River, Victoria	336	28	Part of Wimmera-Mallee domestic and stock water supply system.
Eppalock	Campaspe River, near Heathcote, Victoria	312	45	For irrigation and to supplement supply to Bendigo.
Cardinia	Cardinia Creek, near Emerald, Victoria	287	79	Part of Melbourne water supply storage.
Darwin River	Darwin River, Northern Territory	259	31	Darwin water supply augmentation.
Tantangara	Murrumbidgee River, New South Wales	254	45	Part of Snowy Mountains Hydro-electric Scheme.
Devils Gate (Lake Barrington) (1969)	Forth River, near Devonport, Tasmania	235	84	Mersey-Forth power development.
Avon	Avon River, New South Wales	214	72	Part of Sydney water supply storage.
Upper Yarra	Yarra River, Victoria	207	89	Part of Melbourne water supply storage.
Wuruma	Nogo River, near Eidsvold, Queensland	194	46	Storage for irrigation.
Glenmaggie	Macalister River, Gippsland, Victoria	190	37	Storage for irrigation.
Lake St Clair	Central Plateau, Tasmania	190	3	Improved natural storage for eight Derwent River hydro-electric power stations.
Wellington (1933, raised 1944 and 1960)	Collie River, Western Australia	185	37	For irrigation and domestic water supply.
Koomboooloomba	Tully River, North Queensland	180	52	For hydro-electric and irrigation purposes.
Serpentine	Serpentine River, Western Australia	178	55	For Perth water supply.
Lake Brewster	Lachlan River, near Hillston, New South Wales	153	..	Storage of rural water supplies for lower Lachlan Valley.
Grahamstown	Grahamstown River, near Newcastle, New South Wales	153	12	Part of storage system for Newcastle and district water supply.
Cairn Curran	Loddon River, Victoria	149	44	Storage for irrigation.
Liddell	Gardiners Creek, Muswellbrook, N.S.W.	148	43	Cooling water for Liddell power station.
Eungella	Broken River, North Queensland	131	49	For cooling water and water supply at Collinsville and irrigation.
Rowallan	Mersey River, North Tasmania	130	43	Mersey-Forth hydro-electric power development.
Yarrowonga Weir	Murray River at Yarrowonga, Victoria	117	22	Diversion weir for irrigation.
Cethana	Forth River, near Devonport, Tasmania	108	110	Mersey-Forth power development.
Beardmore	Balonne River, near St George, Queensland	101	15	Storage for irrigation.

For footnotes *see* end of table.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name	Location	Gross capacity (mil. cubic metres)(a)	Height of wall (metres)(b)	Remarks
DAMS AND RESERVOIRS UNDER CONSTRUCTION				
Lakes Gordon and Pedder	South-west Tasmania	11,728	140	Storage for Gordon River hydro-electric power development.
	Gordon River	..	38	
	Serpentine River, Upper Huon River, (Scotts Peak)	2,963	43	
Dartmouth	Lake Edgar		17	
	Mitta Mitta River, Victoria	3,700	180	Additional regulation under River Murray Agreement, hydro-electric power station.
Copeton	Gwydir River, New South Wales	1,358	113	Storage for irrigation.
Monduran	Kolan River, near Gin Gin, Queensland	586	52	Storage for irrigation.
Ross River	Near Townsville, Queensland	417	35	Flood mitigation and water supply to Townsville (first and second Stages).
Glenlyon	Pike Creek, near Stanthorpe, Queensland	261	46	Storage of irrigation waters for Border Rivers Scheme.
South Dandalup River	Near Mandurah, Western Australia	207	41	Storage for Perth water supply.
North Pine	North Pine River, near Petrie, Queensland	205	44	To supplement supply to north Brisbane area.
Tallowa (Lake Yarrunga)	Shoalhaven River and Kangaroo River Junction, New South Wales	123	43	Sydney water supply and pumped storage power development.
DAMS AND RESERVOIRS PROJECTED				
Thomson	Thomson River, near Erica, Victoria	1,110	160	For Melbourne water supply and irrigation storage.
Lake Mackintosh	Mackintosh River, Tullibardine River, near Queensland, Tasmania	900	77	Storage for Pieman hydro-electric power development.
Lake Pieman	Pieman River, Tasmania	655	122	Storage for Pieman hydro-electric power development.
Windamere	Cudgegong River, near Mudgee, New South Wales	346	69	Storage for irrigation.
Rosebery	Pieman River, Tasmania	125	75	Storage for Pieman hydro-electric power development.
Julius	Leichhardt River, near Mount Isa, Queensland	123	35	Water supply to Mount Isa mines, city and other mining development.
Googong	Queanbeyan River, New South Wales	119	59	For Canberra water supply.

(a) Includes 'dead water', i.e., water below the operational outlet of the reservoir. (b) As a general rule, the figures shown for height of wall (metres) refer to the vertical distance measured from the lowest point of the general foundations to the 'crest' of the dam, i.e., the level of the roadway or walkway on the dam.

Irrigation

For some brief remarks on the history of irrigation in Australia see issues of the Year Book prior to No. 39. An article on the conservation and use of water in Australia appeared in Year Book No. 37, page 1096 and subsequent developments have been covered in later numbers of the Year Book.

Water resources research

Comprehensive programs of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following: high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilisation of irrigated pastures by stock; and growth problems affecting plants and trees and reduction of salinity in river systems.

The Commonwealth Scientific and Industrial Research Organization conducts a number of research stations and laboratories at locations throughout Australia. The Division of Irrigation Research at Griffith (New South Wales) is investigating ways of limiting the degradation of land by irrigation, improving the quality and range of irrigated crops, and assessing the amount of water required by irrigated crops and the most economical means of applying it. The crops being studied include citrus, maize, safflower, sorghum, sunflower and vegetables. This Division is also studying the effect on water quality of its use for irrigation, especially in regard to contamination by herbicides and fertiliser runoff. The Division of Environmental Mechanics at Canberra (Australian Capital Territory)

studies the physics of infiltration and redistribution of water in soil, evaporation from field crops, water movement and water stress in plants, and rangeland hydrology. The Division of Land Resources Management is looking at the effect of clearing on the salinity of water from catchments in the south-west of Western Australia. Much of the work of the Division of Horticultural Research at Merbein (Victoria) is concerned with the problems of perennial horticultural crops grown under irrigation. Among other projects salt resistant rootstocks for grapevines and citrus are being evaluated, and the effects of salinity on the photo-synthetic performance and water use efficiency of horticultural crops are under investigation. The Division of Tropical Agronomy conducts research on a number of irrigated crops including grain legumes, grain sorghum, rice, and irrigated pastures at the Kimberley Research Station (Western Australia). The Division of Applied Geomechanics is studying the engineering aspects of water movement through earth embankments and the design of underground water tunnels. Water and salt flow through a slowly permeable deep clay soil, in response to a variety of irrigation regimes, are being studied by the Division of Soils at a site near Griffith, the objective being to model hydrology and salinity relationships with a view to prediction for irrigated clay landscapes.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee Irrigation areas and associated districts, and the Coleambally Irrigation Area. It is representative of the New South Wales Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales, the Water Conservation Service of New South Wales, the Rice Marketing Board of New South Wales, the Wine Grapes Marketing Board of New South Wales, co-operative and secondary industries, and farmers' organisations. Finance is provided by these authorities on an agreed basis. The objectives are: to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed; to provide a system for advising on local agricultural policy and organisation; to provide means for farmer opinion to have due weight in the consideration of regional agricultural administration and policy; to achieve a unified approach to sub-regional extension in all branches of agriculture; to advise on the research needs of the sub-region and to co-ordinate the agricultural research of the various rural institutions working therein; to achieve close liaison between research and extension; and to conduct research in extension methods.

Two other organisations with similar objectives are the Victorian Irrigation Research and Promotion Organisation which operates from Shepparton, and the Murray Research and Extension Committee centred at Deniliquin.

Preservation of catchments

Since water conservation commences on the catchments it is becoming increasingly recognised that anything which interferes with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimise the effects of floods, overstocking, bush fires, and the destruction of vegetative cover. All States and the Australian Government have initiated forestry policies which provide for reforestation and the preservation of catchments. In recent years efforts to counteract soil erosion have been intensified, and there is some evidence of a more unified approach to catchment, water, forestry, and land use, factors regarded as parts of a single problem. This is exemplified in the multi-objective approach to planning now being adopted by some Australian authorities.

Water quality

Although some Australian rivers are naturally saline, the quality of surface water is generally good. However, most types of water pollution experienced in advanced industrial countries also occur in Australia. The main problems relate to sewage, industrial effluents and increasing salinity caused by agricultural activities.

Throughout Australia untreated or inadequately-treated sewage and trade effluents are discharged into inland and coastal streams used for town water supplies. Mining activities cause pollution by the discharge of ore-processing wastes or underground water into streams or by leaching from waste dumps as in the Molonglo River in New South Wales where zinc is leached from tailings and slime dumps at Captains Flat. In this case, such leaching also affects groundwater quality.

Salinity affects two main areas of the country. In south-western Australia, clearing of the natural vegetation has been followed by a rise in watertable levels with consequent increase in discharge of groundwater to river flow. As the groundwater has a naturally high salt content, both the soil and surface water have been adversely affected. About four million hectares of land have been rendered sterile and difficult to till because of soil salinity, and the salt flow into surface storages for local urban water supplies is now a cause for concern.

In south-eastern Australia, salinity problems have caused concern over recent years in the Murray Valley where the salt content of the river is less than 30 milligrams per litre total dissolved solids in the upper reaches and increases progressively down-stream. At Waikerie in South Australia, it exceeded 600 milligrams per litre for much of the irrigation season during the 1967–68 drought. In the extensive irrigation areas of the middle reaches, continual additions to the groundwater from channel seepage and irrigation water cause the watertable to rise. As the sedimentary beds were laid down under a marine environment, the groundwater is saline and when drainage does return to the river, it carries large amounts of salt. It has been calculated that the Kerang area alone contributes, via Barr Creek, about 185,000 tonnes of salt per annum to the Murray, and all drainage in the upper sector of the river a total of 250,000 tonnes. An additional 500,000 tonnes of salt are estimated to enter the river annually as a result of groundwater inflow in the sector between the South Australian border and Morgan. Subsequent use of this water for irrigation has problems. Citrus growers in some areas have had to install under-tree sprinkler systems to prevent defoliation of trees caused by saline water from overhead sprinklers.

Groundwater supplies

Groundwater is more important than surface water in about 60 per cent of the country. Despite the lack of detailed knowledge of groundwater resources in some areas, and limitations on their usefulness because of their high salinity in many areas, they provide about 20 per cent of Australia's water supply.

There are three main sources of groundwater.

(i) *Shallow unconsolidated sediments* which are found in the principal river and lake systems and as coastal dunes, deltas and narrow shoreline deposits. Since 1957 use has been made of the good-quality groundwater resources of the inland drainage systems of New South Wales, such as the alluvium of the Lachlan, Macquarie and Murrumbidgee Valleys. In central and western Australia good-quality water in unconsolidated sediment is rare because of lower rainfall and higher evaporation rates.

The coastal superficial reserves occur mainly in the better rainfall areas of the eastern part of the continent and of Tasmania and contain good-quality water. Since 1939 the Tomago Sands have been a source of water supply for Newcastle, approximately 9 million cubic metres a year being extracted since 1970—about 15 per cent of the total amount of water supplied by the Hunter District Water Board. In Queensland, the sugar industry has drawn on the extensive groundwater resources of the Burdekin Delta to such an extent, that it has become necessary to use surface water to recharge the aquifers artificially. In 1970, when 33,800 hectares of cane were under irrigation, with an estimated demand for 3,200 million cubic metres of water, some 350 million cubic metres of river water were pumped to artificially recharge.

(ii) *Sedimentary basins* which contain at least one major aquifer system. The Great Artesian Basin is the largest, occupying about 23 per cent of the area of the continent and extending into South Australia, the Northern Territory, Queensland and New South Wales. In any one aquifer, the dissolved solids content of the waters is remarkably uniform. However, the high ratio of sodium to calcium and magnesium ions in water from the Great Artesian Basin can have an adverse effect on soil structure, rendering it impervious and making such groundwater unsuitable for irrigation purposes. Bores provide watering points for stock and domestic supplies over much of the basin and some 30,000 holes have been drilled, about 6,000 of which are still flowing. Between 1870 and 1970 the average annual bore discharge has been estimated at 600 million cubic metres of low salinity groundwater.

Marked reductions in flow prompted a series of interstate conferences on artesian water between 1912 and 1928. These stressed the need for controlled development and management of artesian water resources and resulted in the systematic collection and interpretation of data on Australian artesian basins. It is now considered that while many bores will ultimately cease to flow, others will assume a steady rate of flow, corresponding with the average recharge from rainfall absorbed by permeable outcrops. Diminution in flows from artesian bores has emphasised the need to eliminate wastage as much as possible. Licences issued for the construction of new artesian bores prohibit the distribution of water through drains and channels as formerly, and the supplies must be confined to the borehead or piped to appropriate watering points.

Other sedimentary basins providing water for stock and domestic purposes are: the Murray Basin covering 320,000 square kilometres in south-eastern Australia; the Daly, Georgina and Wiso Basins in the Northern Territory and Queensland; and the sedimentary rocks of the Carpentaria Province. Smaller basins in Western Australia, notably the Perth Basin, provide important domestic supplies for the more heavily populated parts of the State. Many of the larger towns, including Albany, Bunbury and Geraldton, and some major industries, depend entirely upon groundwater for

their supplies. In Perth eleven per cent of the water supplied by the Metropolitan Water Supply, Sewerage and Drainage Board comes from groundwater (160 million cubic metres a year) and this proportion is expected to increase to 30-40 per cent in the next decade.

Urban supplies are also obtained from the Amadeus Basin for Alice Springs; from numerous small basins in South Australia for Adelaide and Port Lincoln; and from the Otway and Gippsland Basins in Victoria. Sandstones of the Sydney Basin contain useful aquifers, but most of these basin sediments have a low hydraulic conductivity and contain saline groundwater.

(iii) *Fractured rocks* which are an important source of water particularly in the highlands of the south-eastern mainland and in Tasmania, parts of South Australia, central Australia, shield areas of Western Australia and the Kimberley Block. These aquifers usually yield relatively small supplies and quality may change rapidly over short distances. Generally, groundwater quality is good in northern and eastern Australia but poor over much of South Australia, the southern portion of the Northern Territory and the south-western part of Western Australia, where the low rainfall and high evaporation, coupled with low permeability, account for the variability and poor quality of the groundwater.

The quality of groundwater varies considerably and sources are subject to pollution in much the same way as surface supplies. Locally, groundwater has also been polluted by poor drilling techniques which allow contamination of fresh or lower salinity waters by more highly saline waters, and also by the discharge of industrial wastes into underground drainage bores. The Port Phillip Basin has the problem of discharge of industrial and domestic waste underground, and in the Western Port Basin there has been control of groundwater withdrawal since 1968 to prevent overdraft and salt-water intrusion.

PRINCIPAL WATER-BEARING BASINS IN AUSTRALIA

<i>Name</i>	<i>State</i>	<i>Geological age of chief aquifers</i>	<i>Approximate area</i> square kilometres	<i>Depth to pressure water</i> metres
Great Artesian	Queensland, New South Wales, South Australia and Northern Territory	Mesozoic	1,751,480	Up to 2,130
Canning	Western Australia	Mesozoic-Palaeozoic	388,500	30 to 550
Murray	Victoria, New South Wales and South Australia	Miocene-Eocene	320,000	30 to 400
Georgina (including Barkly and Daly)	Northern Territory, Queensland	Cretaceous, Ordovician, Cambrian, and Upper Proterozoic	279,720	45 to 305
Eucla	Western Australia, South Australia	Pliocene-Miocene	191,660	90 to 610
Carnarvon	Western Australia	Cretaceous, Permian	116,550	60 to 1,220
Perth	Western Australia	Recent, Jurassic	54,390	60 to 760
Western District (Otway)	Victoria	Pleistocene-Upper Cretaceous	33,670	30 to 1,370
Basins of Ord-Victoria region	Northern Territory, Western Australia	Mainly Cambrian, and Permian	31,080	60 to 305
Pirie-Torrens	South Australia	Recent, Pleistocene	23,310	Up to 180
East Gippsland	Victoria	Pleistocene-Eocene	9,060	60 to 1,070
Adelaide	South Australia	Recent, Oligocene	2,850	60 to 180

Conjunctive use of surface and groundwaters

Although utilisation of water resources in most areas of Australia has in the past tended to concentrate on either ground or surface water sources it is becoming increasingly necessary to use all the water resources of a region in conjunction, even in some cases importing water from outside the region. This is known as conjunctive use. Such an approach generally makes more water available for use than would be the case with independent use of the various sources as best use is made of the benefits of each type of resource.

Most conjunctive use schemes or proposals involve ground and surface water with a surface storage constructed on the stream and in some cases provision for artificial recharge of aquifers located beneath or near the area of demand, although in many cases natural recharge facilities are adequate. A comparison of some of the advantages of ground and surface supply facilities is given below.

Surface Storage

small capacity
quick response
high capital cost
low operating cost
(gravity supply)
high evaporation losses

Groundwater Storage

large capacity
slow response
low capital cost
high operating cost
(requires pumping)
low evaporation losses.

It can be seen from this comparison that an ideal plan of utilisation of water resources in a new area consists of first developing groundwater resources due to their low capital cost (the cost of drilling and installing pumps as opposed to the cost of a major dam) and the later construction of a dam to increase the amount of water available for recharge of the groundwater storage and where appropriate for alternative supply by pumping from the river. Alternatively the surface storage can be utilised in periods when plenty of water is available and the groundwater supplies drawn on when the surface supply is unable to meet the demand. When water is again available (following say rainfall and recommencement or an increase in streamflow) use can then revert partly or wholly to the surface supply which the groundwater supply has recharged.

The advantages and disadvantages of each type of source of supply can be described in economic terms both for development and operation. Given a basic objective, such as minimum annual cost, analysis techniques exist to develop operating strategies that will achieve this objective in the best way, given the constraints that may apply such as minimum level of supply or of reliability.

The conjunctive use concept may be applied over a period of some years to allow the cost of development to match the amount of return from the development, or to allow smoothing out of long-term fluctuations in the weather pattern, or it may be applied over an annual timespan where strongly seasonal conditions make surface water available for only a few months of the year and reliable and adequate groundwater supplies are required for the remainder of the year. In Australia to date, the level of development of water resources has been such as not to require the development of a conjunctive use approach, but as the degree of overall development proceeds and as the value of water rises there is increasing pressure for greater amounts of water to be supplied at higher levels of reliability. In the Pilbara region of Western Australia design is proceeding on a major conjunctive use scheme to supply water to several mining towns to meet both urban and industrial demands, both of which require a high level of reliability.

In this situation, with mean annual rainfall of 300 millimetres and annual potential reservoir evaporation of 3000 millimetres, a real advantage in using groundwater supplies is that of avoiding a large surface reservoir in which high evaporation rates would lead to concentration of salts in the water to make it too brackish for use. A small dam will allow utilisation of surface water in periods when the river is flowing together with recharge of aquifers and utilisation of groundwater for the remainder of the time. In the Namoi Valley in New South Wales and the Callide Valley in Queensland, irrigation from groundwater sources is causing falls in the water table and investigations are being made into conjunctive operation of the ground and surface storages to enable the current development of these areas to meet current demands.

Often concomitant with conjunctive use is the development and operation of facilities for artificial recharge of the groundwater aquifers. In the Burdekin Delta in Queensland the first major artificial recharge scheme in Australia is operating and research and investigation is being conducted into problems relating to this scheme. In this particular situation the limiting factor presently is the rate of recharge and although strongly seasonal there is still adequate unregulated flow in the lower Burdekin River to meet the requirements of the recharge scheme.

Because of the requirement of extremely high reliability of supply of water for urban demands a number of Australian towns and cities are using or considering using ground and surface supplies in conjunction. At present the Western Australian town of Bunbury draws all its water from underground. With future growth of the town it is likely that its water demand will exceed the mean annual recharge of aquifers in its immediate vicinity. Although the nearby Preston River has a very seasonal flow, dropping to almost zero in summer, adequate supplies could be drawn from run-of-river during the winter months. This would leave demand on the aquifer only during summer, allowing recharge to take place over winter. Similar conditions exist in a number of other towns and cities in Australia.

Water management

Australia's water resources are managed by about 800 irrigation authorities, metropolitan water boards, local government councils and private individuals. State authorities dominate the assessment and control of water resources as, under the Australian Constitution, primary responsibility for management of water rests with the individual State governments. The Australian Government participates indirectly through financial assistance or directly in the co-ordination or operation of interstate projects through bodies such as the River Murray Commission and the Snowy Mountains Hydro-electric Authority.

The water field is an area of major public sector activity because the storage and distribution of water must take place on a large scale which usually involves costly projects. Investment in water, sewerage and irrigation facilities over the last ten years has tended to consume about 20 per cent of gross fixed capital expenditure by public authorities. Of this total expenditure, 10 per cent has been devoted to irrigation investment. In most cases major storages are intended to be multi-purpose although the pattern of river flow in Australia often makes it difficult to reconcile requirements for irrigation, hydro-electricity and flood mitigation. Increasing problems are being encountered in the provision of adequate supplies for the major cities, and moves for the development of additional catchments tend to conflict with rural requirements.

The proper management of water resources is essential to the maintenance of both quantity and quality of supplies and the ecological balance of the environment in general. Since water is an agent of erosion and deposition, the consequences of its misuse appear sooner than with non-dynamic resources, and with more urgent impact, as in erosion, flooding, siltation and pollution. Conversely, land management practices can interfere with catchment efficiency through overstocking, bushfires and the destruction of vegetation cover. All States and the Australian Government have initiated forestry policies which reflect the strategic watershed location of the main Australian forest lands, upslope from urban centres and near areas of intensive agricultural land use.

Planning of land use on catchments can obviate or reduce siltation, runoff of agricultural materials and pesticides, and the discharge of industrial waste and the effluents of urban areas. Such land use control has been necessary in the Adelaide catchment area where the increased rate of subdivision and industrial development, intensive animal husbandry, intensive agriculture, quarrying and recreation are potential factors in water quality impairment. The catchments of the Snowy Mountains have been kept free of grazing and the associated practices of burning and pasture improvement, to provide for the Snowy Mountains Hydro-electric Scheme and the Kosciusko National Park. On the other hand, the failure of planners in the past to consider the long-term effect of reservoir-construction on streams has often affected the breeding places of inland fish and waterfowl with a consequent reduction of these native populations.

Consequently, in 1973 the Australian Government formulated a national approach to water resources management within the framework of overall economic, environmental and social planning and with the following objectives:

- (a) the provision of water supplies, adequate in quantity and quality—
 - (i) to meet the needs of people throughout Australia, including the provision of satisfactory domestic and urban environments;
 - (ii) to meet the needs of, or to stimulate primary and secondary industry in such a way as to be compatible with projected market outlooks for the commodities concerned, and compatible with the resources and characteristics of the region concerned;

In the rural sector there is likely to be emphasis on promoting stability and growth in established areas.

- (b) the development and management of water resources so that where practicable, other purposes such as flood mitigation, power generation, recreation and improved wildlife habitat are achieved in parallel with the purposes referred to above;
- (c) the development of waste water treatment facilities in conjunction with water supply systems and the encouragement of recycling and re-use;
- (d) implementation of a program of public education and involvement aimed at ensuring on the one hand, a proper understanding of public responsibility in the use and management of water and, on the other hand, an acceptance by all relevant authorities that the public have a right to involvement, and a contribution to make, in the planning and management of water enterprises;
- (e) the allocation of costs so that wherever feasible the user pays the full cost attributable to him, on the basis of appropriate cost allocation techniques. This should be phased in at a rate designed to avoid undue hardship;

- (f) irrespective of the details of cost allocation, the adoption of water pricing policies which enable needs to be met at a fair and reasonable cost, but which provide an incentive to all water users to avoid wasteful or environmentally-harmful practices;
- (g) the continued development of policies and practices, as far as possible consistent throughout Australia, aimed at achieving appropriate water quality objectives and the highest practicable level of pollution abatement;
- (h) the inclusion in these policies of the general objective that direct costs, or costs related to loss of amenity, attributable to pollution should be borne by the polluter. Although the immediate and full adoption of this principle may not be feasible, it is nonetheless a goal to be pursued;
- (i) the zoning of flood-prone land, with a view to its orderly management;
- (j) the maintenance of an adequate sample of undisturbed aquatic environments as reference areas and the preservation of appropriate wetlands for the benefit of native wildlife.

National and interstate aspects

In terms of the Australian Constitution primary responsibility for control and conservation of water rests with the individual State governments. The Australian Government is responsible for matters relating to water in its Territories. However, because political boundaries sometimes intersect river valleys and underground water basins, co-operation between governments has been necessary to develop resources in certain cases. Specific examples of Federal-State and interstate co-operation and approach are given in the following paragraphs.

Australian Water Resources Council

A widening awareness of the need for a co-ordinated Australian approach to water utilisation led to the formation in 1962 of the Australian Water Resources Council by joint action of the Australian and State governments. The Council comprises the Australian and State Ministers primarily responsible for water resources, with the Australian Minister for the Environment and Conservation as Chairman, and is serviced by a Standing Committee consisting mainly of the heads of Departments responsible to these Ministers, and by three permanent technical committees with numerous supporting groups.

The primary objective of the council is the provision of a continuing comprehensive assessment of Australia's water resources, and the extension of measurement and research to provide a sound basis for the planning of future development. In terms of its objectives and functions, the council has dealt with a wide range of topics, making recommendations and stimulating action by appropriate bodies.

Following a recommendation by the council, the Australian and State governments in 1964 adopted an accelerated program of surface and groundwater investigations to establish a comprehensive network of stream gauging stations and to improve knowledge of underground water resources. Besides implementing its own accelerated program in the Northern Territory, the Australian Government has assisted State programs by making grants available over successive three-year periods. In 1973, \$15.1 million was allocated to the States to assist in implementing programs over the next triennium.

Since 1968 the Australian Water Resources Council has administered a Water Research Fund for which the Australian Government has provided a total of \$2.4 million. This research program is aimed at improving the efficiency of water management in Australia by complementing research already being undertaken by other agencies. Current research deals with such topics as: artificial recharge of groundwater, improvement of water sampling and analysis techniques, compilation of Australian water quality criteria and water use efficiency studies.

The Representative Basins Program, a joint Australian-State government venture, was initiated in 1965 as a co-ordinated study of the hydrology of 93 Australian catchments representative of the most typically-occurring complexes of climate, geology, landform, soils and vegetation in the Australian environment. Its aim is to collect and analyse data to improve our quantitative understanding of the water balance in Australian catchments with the following specific objectives:

- (a) national water resources assessment, by improved interpolation between gauged catchments in the Australian stream gauging network;
- (b) improved basis for design of engineering structures (dams and weirs, road and railway bridges and culverts) in ungauged catchments;
- (c) prediction of the hydrologic effects of changes in land use and management; and
- (d) provision of a bank of hydrological data which will be of fundamental importance to management, ecological and environmental studies.

In an attempt to collate available data on Australia's water resources, the following publications have been issued by the council.

A review of Australia's water resources (Stream flow and underground resources) 1963. A review of Australia's water resources (monthly rainfall and evaporation). (Bureau of Meteorology, 1969). *Water Resources Newsletter* (twice-a-year). *Hydrological Series* (listing results of Advisory Panel enquiries). *Technical Paper series* (listing results of research projects). *Inventory of water resources research in Australia* (published annually). *Stream gauging information catalogue. Groundwater resources of Australia.*

Murray River scheme

The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 1,057,000 square kilometres, or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland and approximately one-fourteenth of South Australia. The Murray proper is 2,520 kilometres long. Its main tributaries are the Darling (1,390 kilometres) and the Upper Darling (1,140 kilometres, see page 27), the Murrumbidgee (about 1,550 kilometres), and the Goulburn (about 550 kilometres). The average annual flow of each of the chief contributory streams is as follows: Upper Murray, including the Mitta Mitta and Kiewa Rivers, 4,711.9 mil. cubic metres; Darling River, 3,478.4 mil. cubic metres; Goulburn River (including Broken River), 3,182.4 mil. cubic metres; Murrumbidgee River, 2,528.6 mil cubic metres; and Ovens River, 1,561.6 mil. cubic metres. Irrigated production in the Murray River Basin is mainly grapes for wine, dried fruits, fresh fruits, rice, vegetables, dairy produce, wool, and fat lambs.

River Murray Waters Agreement. For a brief summary of historical events leading up to the River Murray Agreement (1915) by the Governments of Australia, New South Wales, Victoria and South Australia see issues of the Year Book prior to No. 39. Under the Agreement construction works are carried out by the States (which are also responsible for maintenance) subject to the approval and direction of the River Murray Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to South Australia in each year shall be sufficient to maintain certain specified flows in the lower river varying from 58.0 mil. cubic metres a month in the winter months to 165.3 mil. cubic metres a month in the four summer months of maximum demand—the total amounting to 1,546.8 mil. cubic metres over twelve months. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation. For a brief outline of the operation of the Agreement prior to 1949 see Year Book No. 40, page 1065, and earlier issues.

At a conference of Ministers held in 1949 to consider the diversion of the Snowy River it was decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 542.7 mil. cubic metres per annum would be added to the Murray River (see Snowy Mountains Hydro-electric Scheme, page 875) and that increased storage should be provided in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

The River Murray Commission investigated the position and subsequently recommended to the contracting Governments that the River Murray Waters Agreement be amended to provide for enlargement of the Hume Reservoir by 616.7 mil. cubic metres to approximately 3,083.7 mil. cubic metres. A conference of Ministers in 1954 agreed to the enlargement, and it was also agreed that the Commission should be given power to construct regulators and to carry out such other work on the Murray River between Tocumwal and Echuca as it considered necessary to reduce the losses from the regulated flow in that stretch of the river. The amended Agreement was ratified in the Parliaments of Australia and the three States and was proclaimed on 7 April 1955. In view of the proposed diversions by the Snowy Mountains Authority to and from the Murray River, and for other reasons, amendments to those sections of the River Murray Waters Agreement dealing with the distribution of the waters of the Murray were considered desirable. Following ministerial conferences, amendments were ratified by the four Parliaments concerned, and came into force on 6 November 1958.

Further amendment of the Agreement to provide for the construction of a storage of approximately 6,167.4 mil. cubic metres capacity at Chowilla in South Australia was ratified by legislation in the Australian and State Parliaments and came into force on 30 April 1964. However, in view of the greatly increased costs by the time the project came to tender in 1967 and other significant factors (including water quality in the Lower Murray) which had arisen in the interim, the River Murray Commission resolved that, pending further investigations, construction of Chowilla Dam should be deferred. Further investigations then followed, including a re-assessment of the likely yield from both Chowilla and alternative storages on the Upper Murray and Mitta Mitta Rivers. Following careful

consideration of this re-assessment, the River Murray Commission in February 1969 agreed that a 3,700.4 mil. cubic metres storage at Dartmouth on the Mitta Mitta River provided the greatest overall benefits in terms of cost and yield and should be the next development of the resources of the River Murray. The question of sharing the benefits could not be resolved by the Commission and was therefore referred to the respective Governments. Subsequently, Ministers representing the four Governments concerned met in March 1969 and agreed on conditions for the construction of the Dartmouth Project and for the sharing of the increased system yield between Victoria, New South Wales and South Australia. Among other things, the meeting of Ministers agreed to continue the Menindee Lakes Agreement in perpetuity.

The Australian Government has offered to assist the three States with financing the project by way of a loan to the extent of 50 per cent of each State's contribution. At the same time it will make its own quarter contribution of the cost of the project.

The Acts ratifying the amendments to the River Murray Waters Agreement were proclaimed by the four contracting Governments on 30 March 1972, and work commenced on the construction of Dartmouth Dam on 1 April 1972.

Inflows to the Murray system during the winter and spring of 1972 were well below average and by September it was apparent that the 1972-73 year was likely to be a severe drought year.

Irrigation diversions had begun earlier than usual and Hume Reservoir did not fill, a maximum of just over 2,467.0 mil. cubic metres, 81 per cent of the available storage, being reached early in September. Although a period of restriction was not formally declared, New South Wales and Victoria undertook to restrict their diversions from River Murray Commission resources to agreed amounts. Water accounting commenced on 1 October 1972 to ensure an equal sharing of available water between these two States.

In contrast to the 1971-72 year, the dry and stable weather conditions led to extensive periods of close river regulation until the onset of rain in late January, 1973. The drought was effectively broken by further general rains in March and April. Of the total flow of the River Murray and its tributaries in the year 1972-73, 3,944.7 mil. cubic metres were diverted and impounded by the State of New South Wales and 3,587.0 mil. cubic metres by Victoria, while 555.1 mil. cubic metres were diverted by South Australia. During the year 3,052.9 mil. cubic metres were passed to South Australia. The total diversion for irrigation, town water and other purposes from the River Murray itself by New South Wales was 1,715.8 mil. cubic metres and by Victoria 1,697.3 mil. cubic metres.

River Murray Works. Dartmouth Dam when completed in 1977 will store 3,700.4 mil. cubic metres of water and will be the largest reservoir in the River Murray system. It will complement Hume Reservoir, situated just below the junction of the Murray and Mitta Mitta Rivers, which has a storage of 3,059.0 mil. cubic metres and forms a lake 20,234 hectares in area.

The Yarrawonga Diversion Weir, which was completed in 1939, raised the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan junction and the other below the Lachlan junction.

The Mulwala Canal, supplied from the Yarrawonga Weir, has an off-take capacity of 71 cubic metres a second, serving 723,435 hectares of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 35 cubic metres a second, serving 121,406 hectares. Not all of this area is irrigated.

Adjoining the river in New South Wales, and 56 kilometres from the Murray-Darling junction, Lake Victoria storage, with a surface area of 11,198 hectares, was completed in 1928. The water released from Lake Victoria is used by the South Australian settlements. The inlet channel to Lake Victoria was enlarged in 1957 to permit greater diversion of periodical flood flows of short duration.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 80 kilometres up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 24 kilometres.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of kilometres of distribution channels and have provided a number of storages on the tributaries, thereby contributing materially to the large amount of irrigation development in the Murray Basin. The main storages are: New South Wales—Menindee Lakes Storage (Darling), Blowering (Tumut), Burrinjuck (Murrumbidgee), Copeton (Gwydir), Keepit (Namoi),

Burrendong (Macquarie) and Wyangala (Lachlan); Victoria—Eildon (Goulburn), Waranga (Goulburn), Mokoan (Broken), Eppalock (Campaspe) and Cairn Curran (Loddon). Details of these, and other State works on Murray tributaries will be found in the sections dealing with State systems.

New South Wales—Queensland Border Rivers Agreement

The catchments for the border streams of New South Wales and Queensland (5,180 square kilometres) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland), and elevation rises to 914 metres. Average rainfall is 762 millimetres. The catchments and the areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that from April to October it is necessary to supplement rainfall by irrigation to stabilise and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Other possible development of the area includes irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry.

The New South Wales—Queensland Border Rivers Agreement came into effect on 1 July 1947. The Agreement provided for the construction of certain works on those sections of the Severn, Dumaresq, MacIntyre, and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland, for the furtherance of water conservation, water supply and irrigation in those States.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Border Rivers Commission to give a storage basin with a capacity as large as is reasonably practicable, and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision was also made for the construction of not more than four regulators in the effluents from the Border Rivers and for the taking over of the existing weirs on the MacIntyre and Barwon Rivers at Goondiwindi and Mungindi respectively. The cost of these works and of administration are to be borne by the States in equal shares. The Agreement further provided that the water discharge from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

After unfavourable foundation conditions were disclosed at several dam sites on the Dumaresq River, investigations were extended to tributary streams, and superficially suitable sites located on Pike Creek and the Mole River. A geophysical survey was made at each of these sites and preliminary comparative estimates were prepared to determine the relative economy of providing one large storage at Mingoola or two smaller storages on the tributaries. Following exploratory drilling of the tributary sites, a report dealing with alternative storage proposals and possible amendments to the existing Agreement was submitted to the participating States. Consequent upon these investigations an Amending Agreement was executed between the States of New South Wales and Queensland in November 1968, which included *inter alia* provision for the construction of storages on Pike Creek (Queensland) and the Mole River (New South Wales). The new agreement also provided for investigation and construction of works for the improvement of flow and of the distribution of flow in streams which intersect the New South Wales—Queensland border west of Mungindi.

Works completed under the original agreement include Bonshaw, Cunningham and Glenarbon Weirs on the Dumaresq River, a weir and regulator on the Barwon River at the off-take of the Boomi River. Until a dam has been constructed it is unlikely that any other weirs will be required.

Dam on Pike Creek. In December 1970 following a request by the two States, the Australian Government agreed to contribute one third of the cost of the dam on Pike Creek up to a maximum of \$4.65 million, dependent upon a check by the Snowy Mountains Engineering Corporation of the cost estimate. Pending the outcome of the check the two States authorised expenditure to enable the preparation of plans and specifications for the dam to continue. In May 1972 the Australian Government advised the check of the estimates had been completed. The two States subsequently approved that the dam (subsequently called the Glenlyon Dam) be constructed to provide a gross storage capacity of 261.5 mil. cubic metres, at an estimated cost of \$14 million and the time of its commencement be 1 July 1972. By 30 June 1973 detailed design was virtually complete and provision of access roads, township and construction services, buildings, facilities and land resumptions were in progress. Foundation stripping was well advanced and final clean up and grouting commenced. Expenditure on the project in 1972–73 totalled \$1,999,656.

Improvement of distribution of flow—Rivers crossing the border. During 1971–72 the two States considered proposals for the better distribution of flows in the Balonne—Culgoa River System. The proposals provide for the construction of four regulating structures, one in each stream immediately downstream of the four main bifurcations, namely, the Culgoa/Balonne Minor, the Balonne Minor/Donnegri Creek, the Ballandool/Bokhara and the Bokhara/Birrie bifurcations. The works, estimated to cost \$152,000, to be met equally by the two States, were approved for construction in November 1972. Expenditure to 30 June 1973 totalled \$64,281.

Snowy Mountains Hydro-electric Scheme

Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Australian Government and the States of New South Wales and Victoria in 1947 and 1948, and the submission by the Committee of reports in 1948 and 1949, the Australian Parliament passed the *Snowy Mountains Hydro-electric Power Act 1949* setting up an Authority to implement the proposals agreed upon.

The basis of the proposals was to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

The scheme involves two main diversions, that of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and that of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. In addition, works required to make use of the waters of the Upper Murrumbidgee, the Upper Tumut, the Upper Tooma and the Geehi Rivers for power generation also provide additional regulation of these streams, and this makes more water available for irrigation. Details of the two trans-mountain diversions and the associated power works together with details of progress and construction are given in Chapter 27, *Electric Power Generation and Distribution*.

The average total gain by diversion and regulation now that all storage works are completed is assessed at 1,381.5 million cubic metres per annum to the Murrumbidgee and 987 million cubic metres per annum to the Murray.

International aspects

International water organisations

Australia maintains contact with international bodies and United Nations agencies concerned with water resources and participates in their activities in various ways.

Organisation for Economic Co-operation and Development (OECD). Australian membership of the OECD since 1970 has involved participation in the work of the Water Management Sector Group. The group is composed of senior government officials responsible in their own country for the management of water and is responsible to the Environment Committee. It has the role of investigating and rationalising problems which are the subject of international concern and providing for strategies—economic, legal and technical—which might resolve them.

United Nations Educational, Scientific and Cultural Organization (UNESCO). The International Hydrological Decade (1965–1974) has been a period in which participating countries, including Australia, have implemented an international program designed to advance the science and practice of hydrology. More research and improvement of basic data acquisition has been encouraged as well as education and training, exchange of information and regional and global co-operation. Australia has been one of the 21 countries (later increased to 30) represented on the Co-ordinating Council for most of its annual sessions. The Australian UNESCO Committee for the International Hydrological Decade collaborated with Australian and State Government agencies, universities and other institutions concerned with hydrology on activities relevant to the IHD program. International seminars on hydrologic forecasting and on drought were conducted and a publication issued on *Australian Activities in Hydrology*. An international program in hydrology (IHP) will continue after the conclusion of the IHD. Intergovernmental Mid-Decade and End of Decade Conferences on the practical and scientific results were held at Paris in 1969 and in 1974, the latter co-inciding with the Tercentenary of hydrology celebration. The UNESCO publication *Nature and Resources* acts as a bi-monthly bulletin of the IHD and IHP.

World Meteorological Organization (WMO). Information on hydrology and meteorology is vital for water resources activities. WMO which has, *inter alia*, a Commission on Hydrology (formerly hydrometeorology) has recently strengthened its role in operational hydrology and its contact association with hydrological services. There is an Advisory Committee on Operational Hydrology on which Australia is represented indirectly through the WMO Regional Association V. WMO has made a notable contribution to the IHD program with its published reports on about twenty WMO/IHD projects and will participate in the IHP. The Director of Meteorology is the permanent Australian representative on the WMO which meets every four years in congress. In Australia, hydrological activities and meteorological activities relative to water resources are co-ordinated by the Australian Water Resources Council.

Economic and Social Commission for Asia and the Pacific (ESCAP). ESCAP (formerly ECAFE) is one of four regional economic commissions set up by the United Nations under the Economic and Social Council in 1947. The Commission through what is now called the Natural Resources Division of the ESCAP Secretariat has established a regular Regional Conference on Water Resources Development (now held every two years) which reviews and reports to the commission on a program of activities, largely of a technical nature but also including water policy issues. The program of activities is broadly concerned with the planning, management and development of water resources, including water resources planning of international rivers (e.g. the Mekong), measures for the mitigation of flood damage (so severe in this region) and the application of science and technology to the water field. By participation in this conference and in seminars arranged on selected topics, Australia contributes to, and benefits from, identification of the main problems of water resources management in a densely populated, developing region. A quarterly periodical, the *Water Resources Journal*, and a *Water Resources Series* publish the proceedings of conferences and seminars.

United Nations Environment Program (UNEP). A number of the recommendations of the UN Conference on the Human Environment held in Stockholm, June 1972 which forms part of the UNEP, relate to water (namely 51–55, 63 and 68). These involve Australian participation in a world registry of major rivers covering discharge and pollutants and of clean rivers so defined and in the development of methodology for analysis and planning of water resources management.

International Commission on Irrigation and Drainage (ICID). This commission was set up in India in 1950 so that the technical experience of all countries might be pooled for the benefit of all, and to promote the development and application of the science and technique of irrigation, drainage and flood control in their engineering, economic and social aspects. The commission consists of a National Committee from each participating country, and over sixty countries have so far been admitted to membership. Australia has been a member of ICID since 1952, and the National Committee consists of representatives of government departments, statutory authorities, firms and individuals actively interested in irrigation and drainage. Congresses of all member countries are held every three years.

STATES AND TERRITORIES

The foregoing text deals with water conservation and irrigation in Australia generally and with international, national and interstate aspects. The following survey covers the local pattern of water resources and the steps taken by the State Governments to bring about their development. In the various States, water policies tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria almost every form of water scheme is in operation. In New South Wales major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Area. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock, and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilise sugar production. Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest relates almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with stock supplies and the safeguarding of long stock routes.

New South Wales

Administration

The Water Conservation and Irrigation Commission of New South Wales consists of three members appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, the establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the Water Act, 1912-1955 the right to the use and flow, and the control of water in all rivers and lakes which flow through or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage and prevention of inundation.

For particulars of the New South Wales-Queensland Border Rivers Agreement ratified by Acts of both States in 1947, see page 874 of this chapter.

Schemes summarised

The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam, Lake Cargelligo and Lake Brewster on the Lachlan (a tributary of the Murrumbidgee), by Glenbawn Dam on the Hunter River, by Keepit Dam on the Namoi River, by Burrendong Dam on the Macquarie River, and by the Menindee Lakes Storage on the Darling River. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc. in many places. Copeton Dam on the Gwydir River is in the course of construction. In addition, substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts, and river improvement districts. There are nine irrigation areas, although two of these, Yanco and Mirrool, are generally described under the one heading, namely, the Murrumbidgee Irrigation Area. The Areas are: The Murrumbidgee Irrigation Area, consisting of 182,620 hectares served with water through a channel system stemming from the river at Berembed Weir; the Coomealla Irrigation Area of 14,013 hectares, served by pumping from the Murray; the Curlwaa Irrigation Area of 4,204 hectares, supplied from the Murray by pumping; the Hay Irrigation Area of 2,772 hectares, supplied with water pumped from the Murrumbidgee; the Tullakool Irrigation Area of 7,287 hectares, supplied from the Edward River by diversion at Stevens Weir; the Buronga (3,537 hectares) and Mallee Cliffs (769 hectares) Irrigation Areas, served by pumping from the Murray; and the Coleambally Irrigation Area (94,954 hectares), served by diversion from the Murrumbidgee River. All these Areas are administered by the Commission.

The capacities of the main storages for irrigation in New South Wales (in million cubic metres) are:

- Darling*—Menindee Lakes Storages (1,811.6); Severn-Pindari Dam (37.4);
- Murray*—Half share of Hume Reservoir, weirs and locks to Wentworth (1,667); Paterson-Lostock Dam (20.2); Stevens Weir, Edward River (8.8);
- Tumut* (tributary of Murrumbidgee)—Blowering Dam (1,631.2); Iron Pot Creek (tributary of Richmond River)—Toonumbar Dam (11.1);
- Macquarie*—Burrendong Dam (1,189.3 irrigation storage; 489.4 flood mitigation storage);
- Murrumbidgee*—Burrinjuck Dam (1,032.4); Redbank Weir (9.1); Maude Weir (8.3);
- Namoi*—Keepit Dam (425.9);
- Lachlan*—Wyangala Dam (1,217.4); Lake Brewster (152.8); Lake Cargelligo (36.3);
- Hunter*—Glenbawn Dam (228.6 irrigation storage; 133.1 flood mitigation storage);
- Belubula* (tributary of Lachlan River)—Carcoar Dam (37.0).

The total length of supply channels, drains, escape channels and pipe lines constructed by the Water Conservation and Irrigation Commission in New South Wales is 8,490 kilometres. This comprises 5,772 kilometres of supply channels (including main canals), 2,607 kilometres of drains and scape channels, and 111 kilometres of pipe lines.

Irrigated culture

The following table shows details of the area of crops and pasture and the methods employed on land under irrigated culture during the 1972-73 season.

AREA OF LAND UNDER IRRIGATED CULTURE: NEW SOUTH WALES, 1972-73
(Hectares)

	<i>Method of irrigation</i>					<i>Total Area</i>
	<i>Spray</i>	<i>Furrow</i>	<i>Flood</i>	<i>Trickle</i>	<i>Multiple Methods</i>	
Crops—						
Cereals	15,688	19,565	152,388	..	918	188,559
Cotton	16	27,280	3,812	..	..	31,108
Fruit	6,702	5,960	581	633	172	14,048
Linseed	20	125	570	..	..	715
Safflower	6	12	253	..	..	271
Sunflower	208	1,558	6,171	..	..	7,937
Tobacco	803	64	31	..	..	898
Vegetables	10,994	2,534	605	32	71	14,236
Grapevines	835	6,464	632	1,270	215	9,416
Other crops (a)	2,597	3,680	8,448	8	73	14,806
Total crops	37,869	67,242	173,491	1,943	1,449	281,994
Lucerne	36,240	422	33,019	..	220	69,901
Pastures	38,998	4,605	318,285	..	1,393	363,281

(a) Includes fodder crops.

Irrigation areas

Murrumbidgee. This area, which consists of Yanco and Mirrool Irrigation Area, together with adjacent lands supplied under agreement, received 488.9 mil. cubic metres, nearly 14 per cent of the total water (4,068.0 mil. cubic metres) used within the State for stock, domestic and irrigation purposes. The area is served by the Burrinjuck Dam on the Murrumbidgee River and Blowering Dam on the Tumut River, which joins the Murrumbidgee River near Gundagai. The catchment of the Burrinjuck Dam is about 12,950 square kilometres and water storage in Blowering Dam is from the natural flow of the Tumut River and water released into that river from the Snowy-Tumut Development Section of the Snowy Mountains Hydro-electric Scheme. This includes water from the Eucumbene, Upper Murrumbidgee, Tooma and Upper Tumut Rivers. The dams also provide town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation are supplied to the Irrigation Districts of Tabbita, Benerembah and Wah Wah, and the Flood Control and Irrigation District of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district, and water is not released from the dams for that purpose. For other areas and districts, however, water is stored during the winter, fed by melting snows and spring freshets, and is released during the September-May irrigation season. To supply the Yanco and Mirrool Areas, water is diverted by Berembad Weir into the main canal which has an off-take capacity of 45 cubic metres a second. The main canal has been completed to beyond Griffith, a distance of approximately 154 kilometres. These areas are served by approximately 1,283 kilometres of supply channels and pipes and 1,416 kilometres of drainage channels. In addition, approximately 715 kilometres of supply channel run through the Tabbita, Benerembah and Wah Wah Districts which are adjacent to the Areas.

The Water Conservation and Irrigation Commission controls land transactions and water supplies for the Murrumbidgee Irrigation Areas only, and has no jurisdiction over land transactions in the adjacent irrigation districts, although it is responsible for the operation and maintenance of the water supply in these areas. Other local government services, including electricity and town water supply, are provided by Councils. Land is disposed of by the Commission by purchase or under perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30 June 1973 was 167,050 hectares including 11,877 hectares held for short lease grazing, agriculture, etc.

The land on which the Murrumbidgee Irrigation Areas and associated districts are situated originally comprised large sheep stations and was sparsely populated, but at 30 June 1973 its population was approximately 31,500, that of Leeton Shire being 11,724 and that of Wade Shire 18,950. The principal products of the Murrumbidgee Irrigation Areas are wool, livestock for slaughtering, rice, citrus fruits, peaches and nectarines, grapes, tomatoes, peas, beans, and root vegetables. Rice growing was initiated in the M.I.A. in 1924 and has since become the most important crop. In a normal season, the water supplied for rice represents about half the total delivered to the Area.

Other Irrigation Areas. The Coomealla, Tullakool, Buronga, Mallee Cliffs, Hay, Curlwaa, and Coleambally Irrigation Areas follow the same administrative pattern as the Murrumbidgee Area—that is, land transactions are administered by the Water Conservation and Irrigation Commission which is responsible also for the operation and maintenance of works to supply water.

Irrigation districts

These districts are set up under the Water Act, 1912–1955 for (a) domestic and stock water supply and (b) irrigation. The essential difference between an 'Area' and a 'District' is that in the case of the former, all the land to be included in the area is acquired by the Crown and then subdivided into such number of separate holdings as may be determined. Within the District, however, existing ownership of land is not disturbed other than to acquire land required for water distribution works.

Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilise the New South Wales share of the storage. Water is not available for the whole of the 2,023,430 hectares adjacent to the Murray in New South Wales, and therefore the schemes are based on 'extensive' irrigation, that is, water rights are allotted to holdings on the basis that only a portion of each holding (one hectare in three, five or ten, according to the district, etc.) will be irrigated but additional water, when available, may be obtained by landholders. 'Water right' means right to such a quantity annually of water, 30 centimetres deep, as will cover an area of 0.4 hectares.

Water to serve Berriquin, Deniboota and Denimein Districts is diverted from the Murray River at Yarrowonga into the Mulwala Canal. Water for the Wakool Irrigation District and the Tullakool Irrigation Area is diverted from the Edward River at Stevens Weir, and a supplementary supply is also obtainable from Mulwala Canal. The total length of completed canals and channels in Berriquin District is 1,682 kilometres, comprising Mulwala Canal 121 kilometres, Berrigan Channel 35 kilometres, subsidiary channels 1,326 kilometres, escape channels 183 kilometres, and cross drainage channels 16 kilometres. Off-take capacity of the Mulwala Canal is 6.2 mil. cubic metres a day. Wakool, with 692 kilometres of channels, contains 328 holdings, and the area developed by irrigation includes about one hectare in six of the total area. Sheep raising and rice growing are the main industries. Considerable subdivision has occurred within the Berriquin District, and the proportion of the total area developed for irrigation is higher than in the case of Wakool. Sheep (including fat lambs), dairying, wheat, and rice growing are the main industries.

Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts

The Water Act, 1912–1966 provides for the constitution of Trust Districts for domestic and stock water and irrigation, and empowers the Commission to construct, acquire or utilise necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following are the water trusts, other than irrigation, as at present constituted (the area in hectares of each district being shown in parenthesis): *Murray River*—Little Merran Creek (63,714), Bullatale Creek (27,648), Poon Boon (13,881), Minnie Bend Flood Prevention (886); *Murrumbidgee River*—Yanco, Colombo and Billabong Creeks (407,834); *Lachlan River*—Marrowie Creek (118,427), Torriganny, Muggabah and Merrimajeel Creeks (68,894), Micabil Weir (4,654), Condobolin West Weir (1,813); *Miscellaneous*—Great Anabranche of Darling River (388,168), Nidgerie Weir (18,972), Algdugerie Creek (3,758), and Boomi River (105,230)—making in all a total area of 1,223,879 hectares. Twelve of these trusts have been formed for the provision of water for domestic and stock purposes and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way. There are seven of these trusts.

The Lowbidgee Provisional Flood Control and Irrigation District, the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. Another district, Medgun, near Moree in the north-west, is also in operation.

River, lake and farm water supplies

During recent years the number of licences and permits issued to individuals to draw water from rivers and lakes for irrigation have increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognised as a means of stabilising production in dry months. There has also been a considerable increase along the Murrumbidgee, Lachlan, Namoi, and Macquarie Rivers.

Under the Farm Water Supplies Act, 1946, technical advice and assistance, and also financial assistance, are made available to help individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams, and flood and spray irrigation systems.

Underground water

For information on underground water resources in New South Wales see Year Book No. 55 and earlier issues.

Future program

The program of development in hand includes the provision of additional dams and storages, weirs, and flood mitigation and river protection works in various parts of the State. Work is continuing at Copeton Dam site on the Gwydir River. Legislation has been passed authorising the construction of Windamere Dam on the Cudgegong River, a dam on the Brogo River and existing legislation authorises the construction of a flood control and irrigation dam at Warkworth in the Hunter Valley. The Hunter River development, of which Glenbawn Dam is an integral part, incorporates an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. The strengthening and enlargement of Wyangala Dam, on the Lachlan River, has been completed and storage capacity has been increased to 1,217.6 mil. cubic metres following installation of radial gates in the spillway. Within the new Coleambally Irrigation Area further development of farms has been carried out and water is being supplied by the Coleambally Canal which off-takes from the Murrumbidgee River at Gogeldrie Weir. At 30 June 1973, 312 large area farms and 22 horticultural farms were occupied.

Victoria

Administration

Victorian Governments have been active in the development of country water supplies since the 1860's when major works to supply the Bendigo goldfields were undertaken. Local trusts to construct and operate waterworks under Government supervision were provided for in the *Water Conservation Act 1881*. Development under the trust system was greatly stimulated by the *Irrigation Act 1886*, which provided for the construction of national headworks by the State, and vested in the Crown the right to the use and control of all surface waters. By 1900 there were 33 irrigation trusts and 18 other rural water supply trusts, but the system of local control was then breaking down under financial difficulties.

The *Water Act 1905* established the State Rivers and Water Supply Commission to take over the Irrigation Trust districts (except the still-existing First Mildura Irrigation Trusts) and to exercise the State's functions in the further control and development of surface waters outside the metropolis. The Commission now supervises all private diversions from streams and directly administers irrigation districts covering 916,923 hectares, rural waterworks and urban districts covering 4,867,295 hectares, flood protection districts covering 60,235 hectares and urban water supplies serving 312,600 people. It also supervises the activities of local urban water supply authorities supplying 708,720 people in 316 towns, as well as 113 local sewerage authorities and 32 river improvement and drainage authorities.

Works summarised

Since the State Rivers and Water Supply Commission began its operations in 1906 the capacity of storages under its control has been increased from 212.2 mil. cubic metres to 6,221.7 mil. cubic metres. In addition, Victoria has in effect a half share in River Murray Commission storages totalling 1,667.0 mil. cubic metres, bringing total capacity available to Victoria at 30 June 1974, to 7,888.8 mil. cubic metres. Most of the water used from these storages is for irrigation. The area irrigated in 1973-74 totalled 545,041 hectares (compared with 42,490 hectares in 1906). Irrigation deliveries in 1973-74 totalled 1,735.7 mil. cubic metres. The value of irrigation production in 1972-73 was estimated at \$235,950,000. Irrigation deliveries for that year totalled 2,825.8 mil. cubic metres. Of the total irrigation production about one-quarter was from lands irrigated by 'private diverters', i.e. irrigators who are authorised to take water from streams, lakes, etc., but who do not come within the boundaries of an irrigation district.

Storages

Capacities of principal storages (in mil. cubic metres) and system totals at 30 June 1974 were as follows:

- Goulburn System*—Eildon, 3,390.1; Waranga, 411.2; total, 3,862.1.
Murray System—half share of Murray storages, 1,667.1; total, 1,667.1.
Broken River System—Nillahcootie, 39.8; Mokoan, 364.8; total, 404.6.
Ovens System—Lake Buffalo, 24.1; Lake William Hovell, 12.3; total, 36.4.
Loddon System—Cairn Curran, 148.8; Tullaroop, 74.1; Laanecoorie, 7.7; total, 230.7.
Campaspe-Coliban System—Eppalock, 311.9; Coliban storages, 80.1; total, 392.0.
Wimmera-Mallee Systems—Rocklands, 335.5; Toolondo, 106.6; Bellfield, 78.5; total, 775.1.
Maffra-Sale System—Glenmaggie, 190.3; total, 190.4.
Werribee-Bacchus Marsh—total, 60.2.
Mornington Peninsula—total, 59.3.

Irrigated culture

The following table shows details of the area of crops and pasture and the methods employed on land under irrigated culture during the 1972-1973 season.

AREA OF LAND UNDER IRRIGATED CULTURE: VICTORIA, 1972-73
(Hectares)

	Method of irrigation					Total Area
	Spray	Furrow	Flood	Trickle	Multiple Methods	
Crops—						
Cereals	1,732	328	18,593	..	66	20,719
Fruit	5,508	3,677	6,961	1,995	768	18,909
Vegetables	11,968	1,974	603	5	132	14,682
Grapevines	2,175	14,221	915	115	69	17,495
Other crops(a)	1,906	249	4,738	28	41	6,962
Total crops	23,289	20,449	31,810	2,143	1,076	78,767
Lucerne	7,310	484	16,891	..	173	24,858
Pastures	28,254	9,682	478,359	..	3,942	520,237

(a) Includes fodder crops.

Irrigation systems

Goulburn-Campaspe-Loddon. The principle storage for Goulburn waters is Lake Eildon, which was completed in 1956, submerging the original 377.5 mil. cubic metres Eildon storage completed in 1927. For the distribution of additional supplies available from Eildon and from other new storages on the Loddon and Campaspe rivers it has been necessary to undertake major enlargements in the distribution system by a long-term program of channel works which is still in progress. Deliveries of Goulburn-Campaspe-Loddon water during the 1954-55 Irrigation Season totalled 487.0 mil. cubic metres. This was near a record for annual deliveries at this time. The enlargement of Lake Eildon, and later storage and distribution developments, led to much higher delivery levels. Record deliveries of 1,310.7 mil. cubic metres were recorded in 1972-73. Deliveries during 1973-74 amounted to only 764.9 mil. cubic metres, owing to the fact that above average rains reduced demands.

Goulburn River water is diverted to the irrigation areas by gravitation from the pool formed by the Goulburn Weir, near Nagambie, completed in 1890 as a State work. The East Goulburn Main Channel, with a capacity of 2.5 mil. cubic metres per day, supplies the area around Shepparton. Two channels, each of 3.7 mil. cubic metres per day capacity, to the west, convey water to the off-river Waranga Reservoir, and supply part of the Rodney area through off-takes on the way. From Waranga Reservoir there are two main outlets, one supplying the western part of the Rodney area and the other, of 2.9 mil. cubic metres per day capacity, supplying the Waranga Western Main Channel, which runs 370 kilometres west across the Campaspe and Loddon Valleys to beyond Birchip.

Flows in the Waranga Western Main Channel are augmented by the injection of Campaspe water through a pumping station of 0.5 mil. cubic metres per day capacity near Rochester. Supply to the Tragowel and Boort areas is augmented by gravitational diversion of Loddon water.

The gross area of holdings in the Goulburn-Campaspe-Loddon systems is 543,523 hectares. The main products are dairy produce, fruit, wool, and fat lambs. Annual production of deciduous canning fruits in the eastern part of the system is about two-thirds of Australia's total.

Murray River System. Water is diverted from the Murray by gravity at the Yarrowonga Weir for the Murray Valley Irrigation Area and at the Torrumbarry Weir for the Torrumbarry irrigation system which extends to Swan Hill. Holdings in the Murray Valley area total 121,952 hectares, devoted mainly to dairying, fat lambs and canning fruit. Holdings in the Torrumbarry system total 161,950 hectares, devoted mainly to dairying and the production of fat lambs, with a concentration of vineyards, orchards and market gardens around Swan Hill.

Downstream from Swan Hill there are 5 districts supplied by pumping: the district of the First Mildura Irrigation Trust and the 4 Commission districts of Nyah, Robinvale, Red Cliffs and Merbein. These districts together serve 30,281 hectares, producing mainly dried vine fruits, with some citrus fruits and table and wine grapes.

Southern systems. The Maffra-Sale-Central Gippsland district, covering 52,800 hectares around Maffra and Sale, is supplied from the Macalister River, regulated by Lake Glenmaggie, and from the unregulated flow of the Thomson River. Dairy Farming is the principal activity. The Bacchus Marsh and Werribee District, supplied from storages in the Werribee River only 32 kilometres west of Melbourne, covers 6,420 hectares intensively developed for dairying and vegetables.

Wimmera-Mallee domestic and stock supply system

Storages in the Grampians in south-west Victoria ensure farm water supplies over an area of 25,000 square kilometres extending northward through riverless pastoral and cereal lands to the Murray. Farm dams throughout this region, which covers one-eighth of the total area of the State, are filled once each year, in the winter-spring season, through the medium of 10,600 kilometres of Commission channels and about 6,400 kilometres of private channels. Without this supply, occupation of the region would be extremely hazardous. Storage capacity has now been increased from 696.6 mil. cubic metres to 775.1 mil. cubic metres by construction of Lake Bellfield. Fifty towns, with a population of 46,000, receive their supply from the same system. Near Horsham and Murtoa, close to headworks in the south, a supply is maintained for the irrigation of an area of 3,030 hectares, mainly for dairying.

Drainage, flood protection and river improvement

The largest work in this category undertaken by the State Rivers and Water Supply Commission is the Koo-wee-rup-Cardinia flood protection district embracing 36,117 hectares of a continuous depression along the seaboard of Westernport. Once useless, indeed a hindrance to communication, this area now yields primary products worth several million dollars each year.

By the *River Improvement Act* 1948, the formation of local river improvement and drainage trusts under the supervision of the Commission has been greatly facilitated and since 1950, 32 such trusts have been formed (including the Dandenong Valley Authority). The importance of river improvement work is expected to continue to grow.

The Dandenong Valley Authority was created in 1963 by special legislation, with jurisdiction over the whole catchment of the Dandenong Creek (777 square kilometres) for purposes of arterial drainage, river improvement and flood protection. In June 1966 the Authority took over the Commission's Carrum Drainage District.

Finance

The net capital liability of the Commission at 30 June 1974 for works under its direct control was \$370.1 million. Eighty-four per cent of the cost of capital and interest repayments was borne by the State. Total expenditure on irrigation was \$192 million; \$33.6 million on rural, domestic and stock supplies; \$63.2 million on urban supplies and \$2.8 million on flood protection. A further \$34.8 million (relating mainly to irrigation) was expended on headworks but has not yet been allocated to the above. The remaining \$43.7 million was for expenditure on storages for private diversion and to supplement supplies to local authorities, and for items such as loan flotation expenses, miscellaneous surveys and investigations, and buildings, plant and stores.

Ten Year Program

The Victorian Water Commission's second ten year plan (for the period 1973-83), reflects a changing emphasis towards greater involvement with urban water supply, sewerage, environmental protection and water quality.

Two basic principles were adopted in formulating the program:

- (i) That the environmental impact of new projects be taken into account with emphasis on multi-objective planning.
- (ii) That each project should be economically sound and viable.

Major provisions of the 1973-83 program include:

- the construction of new water supply trunk mains, reticulated services and water treatment plants at an estimated cost of \$112 million (including \$46 million for locally administered waterworks trusts);
- the sewerage of all towns with populations over 200 by the end of 1982 at an estimated cost of \$37 million;
- the expenditure of \$15 million by river improvement, flood protection and drainage trusts to preserve flood waterways, protect valuable marginal land and safeguard the natural environment of streams in their catchment area;
- expenditure of \$7.5 million on rural waterworks districts, including the Millewa pipeline scheme (to be completed by 1975) and commencement of the pipelining of the extensive Mallee domestic and stock channel system;
- construction or enlargement of ten major storages at a total cost of \$47 million (including Victoria's share of the cost of the Dartmouth Dam project);
- expenditure of \$58 million on irrigation and drainage works within existing irrigation districts;
- expenditure of \$30 million to reduce water losses and control seepage in irrigation distribution systems;
- provision of adequate drainage systems, including groundwater control in irrigation districts at an estimated cost of \$15 million;
- expenditure of \$13 million on salinity control works to arrest the deterioration of highly productive irrigated lands and protect the River Murray from saline inflows from Victorian irrigation areas;
- expenditure of \$5.5 million as Victoria's share of capital works undertaken by the River Murray Commission (additional to the Dartmouth Dam Project);
- expansion of Water Commission facilities and resources at an estimated cost of \$12 million.

Queensland

Introduction

The important primary industries of Queensland are subject to relatively frequent and serious losses by drought and also to extensive flooding. There is therefore a definite and widespread need for the provision of works for water conservation for irrigation, for stock watering and for flood mitigation.

The average annual flow of all streams in Queensland of 133,216.1 mil. cubic metres, equivalent to 39.2 per cent of that for all Australian streams, gives ample scope for such works.

Water resources investigation

The Commissioner of Irrigation and Water Supply is required, under the *Land and Water Resources Development Acts* 1943 to 1946, to (a) prepare a complete description of the natural water resources of the State, both surface and underground, (b) undertake and carry out a survey of such resources, and (c) keep a record of all such natural water resources, surface and underground. For this purpose the Commission has installed and operates 558 stream gauging stations (491 of them being equipped with automatic water level recorders) and collects rainfall data from 103 stations in addition to the Bureau of Meteorology stations.

Licensing and control

As required under the Water Act, rights to underground and surface water are allocated and use controlled by a system of licensing of—(a) all artesian bores in the State; (b) all sub-artesian bores in areas proclaimed by the Governor in Council; the main purpose of proclaiming areas is to ensure the equitable distribution of available supplies and to obtain information on the quantity, quality, extent and use of those supplies; (c) all conservation and use (other than for stock and domestic supplies) of flow in watercourses.

The Commission is required to control use to share supplies as equitably as possible in periods of shortage of supply. At 30 June 1973, 13,977 waterworks licences were in existence, 10,499 being for pumps and 2,763 for dams and weirs and 715 for other works. Areas of sub-artesian water supply proclaimed in which all bores and wells require a license total about 1,410,000 square kilometres. A total of 29,429 bores (artesian and sub-artesian in proclaimed areas) were registered at 30 June 1973.

Development of water resources

The Commissioner of Irrigation and Water Supply is required to prepare a co-ordinated program of work for the conservation, utilisation and distribution of water resources, and to make recommendations to the Government regarding the carrying out of works in this program.

The Commissioner is principally responsible for water conservation and supply works for rural purposes, including irrigation, stock and domestic supply. However, in planning such works, particularly storages, economies to all users can accrue by providing where possible for dual or multi-purpose use of works for irrigation, rural, urban and industrial including power generation and mining purposes. As a result of this approach, 26 cities and towns now draw supplies from Commission storages or by diversion from regulated streams, four storages provide supply for power generation at three thermal stations (Swanbank, Calcap and Collinsville) and one hydro-electric station (Barron Falls), supply for mining operations is drawn from three other storages, and stock water supplies are or will be provided from two Commission and two private pipeline systems serving power stations or mining operations. Urgent water requirements of the expanding mining activities in Central, North and North West Queensland have brought out the need to further ensure the orderly and efficient development of the limited water resources in these areas, to provide for immediate and future needs for both urban, mineral and rural purposes.

Water conservation

At 30 June 1973, the Irrigation and Water Supply Commission controlled and operated 11 dams and 53 weirs with a total available storage capacity of 2633.5 mil. cubic metres. Two dams (Tinaroo Falls and Eungella) are located in North Queensland; two (Fairbairn and Callide) in Central Queensland; the other seven (Moogerah, Leslie, Borumba, Coolmunda, Wuruma, Atkinson and Beardmore) in South Queensland. Of the weirs 30 are in South, 12 in Central and 11 in North Queensland. Weir capacity ranges from 17.3 to less than 0.1 mil. cubic metres; 13 of them having a capacity of over 1.2 mil. cubic metres. Completion of Maroon, Monduran, Glenlyon and Julius Dams, Kolan Barrage and Chinchilla Weir now under construction will provide additional storage of 721.6 mil. cubic metres.

Irrigated culture and sources of supply

The total area under agriculture in Queensland in 1972-73 was 2,019,123 hectares. Of this area some 201,563 hectares were irrigated. In 1972-73 crops or pastures were irrigated on 10,048 holdings or 23.7 per cent of all rural holdings in the State. The area of crops (excluding lucerne and sown and native pastures) irrigated was 155,132 hectares, or 7.7 per cent of the total area under crop. In addition there were 20,569 hectares of lucerne irrigated and 25,862 hectares of other sown and native pastures. The average area irrigated per holding using irrigation was 20 hectares.

Unlike other States, the greater part of the area irrigated is by individual private pumping plants drawing supply from streams or underground sources, spread widely throughout the State, rather than in constituted irrigation areas where supply is provided by channel systems delivering water to farms.

The following table shows details of the sources of supply for the area of land under irrigated culture during 1972-73.

AREA OF LAND UNDER IRRIGATED CULTURE AND SOURCES OF SUPPLY: QUEENSLAND, 1972-73

Source of supply	Area irrigated		Percentage of total area irrigated	
	hectares	hectares	%	%
Underground supplies—				
Naturally replenished	}	116,268	..	57.7
Artificially replenished				
Surface supplies—				
Irrigation areas	24,344		12.1	
Regulated streams	}	48,163	23.9	
Unregulated streams				
Farm dams	12,560	85,067	6.2	42.2
Town water supplies		228		0.1
Total all sources		201,563		100.0

Because of the predominance of irrigation by private diversion pumping, most of the storages are used to release water downstream to maintain supplies for such diversion.

The following table shows details of the area of crops and pastures irrigated and the methods employed on land under irrigated culture during the 1972-73 season.

AREA OF LAND UNDER IRRIGATED CULTURE: QUEENSLAND, 1972-73
(Hectares)

	Method of irrigation					Total Area
	Spray	Furrow	Flood	Trickle	Multiple Methods	
Crops—						
Cereals	15,754	12,687	7,870	..	361	36,671
Sugar Cane	30,752	28,260	7,586	..	4,309	70,907
Tobacco	4,195	99	91	..	129	4,515
Cotton	75	6,040	229	..	69	6,411
Fruit	4,034	186	78	607	286	5,189
Vegetables	16,445	1,411	146	174	123	18,298
Other crops(a)	4,140	6,229	2,420	3	349	13,140
Total crops	75,393	54,910	18,419	784	5,625	155,132
Lucerne	20,268	36	215	..	50	20,569
Pastures	18,762	55	6,757	..	288	25,862

(a) Includes fodder crops.

Irrigation areas

About 9.5 per cent of the area under irrigation in the State is concentrated in the five established Irrigation Areas constituted under the *Irrigation Act, 1922-1973*, where the supply is generally reticulated by channel systems, by means of gravity or by pumping, from the storage. In addition some supply is also provided from streams regulated by the storage. Details of Irrigation Areas established and one under construction are set out below.

Dawson Valley Irrigation Area. The scheme is situated around the town of Theodore and the area is supplied by four weirs (with a capacity of 29.9 mil. cubic metres) on the Dawson River. Pumping stations deliver water through channel systems to 61 farms. Cotton and grain crops account for the major part of production from irrigated farms. In addition to irrigation demand the towns of Theodore and Moura and the Theiss Peabody Mitsui Mining Group obtain supplies from the storages.

Burdekin River Irrigation Area and Water Supply Scheme. This scheme is a complex system of water conservation, irrigation, industrial, urban and stock water supply. Storages are Eungella Dam on the Broken River, and Gorge and Blue Valley Weirs on the Burdekin River. From Eungella Dam, water is diverted directly by a privately owned 127 kilometre piped supply system to coal mining operations at Goonyella and Peak Downs and the town of Moranbah. Supplies for other purposes are maintained along the Bowen and lower 114 kilometres of the Burdekin River by release of water from the storages as required. These purposes and the arrangements for supply comprise (i) a pumping station on the Bowen River delivering supply through 34 kilometres of pipeline to the Collinsville Power Station, Collinsville Town and seven grazing holdings along the pipe line. (ii) Six pumping stations delivering water through channel systems to 152 individual irrigated holdings in Clare, Millaroo and Dalbeg sections of the Burdekin River Irrigation Area. Principal production crops from irrigated farms are sugar cane, rice and seed crops. (iii) private diversion by pumping for irrigation on individual holdings along the Bowen and Lower Burdekin Rivers.

Mareeba-Dimbulah Irrigation Area. This area is supplied by Tinaroo Falls Dam and weirs on the Barron and Walsh River systems. Water is delivered through channel systems and regulated streams to 563 farms on which the principal crop is tobacco. In addition, water is supplied to the towns of Mareeba, Dimbulah, Walkamin, Mutchilba and Tinarro Falls and to the Hydro-electric Generating Station at Barron Falls.

St George Irrigation Area. This area is located near the town of St George and the principal storages for this area are Beardmore Dam and Jack Taylor Weir on the Balonne River and two weirs on Thuraggi Watercourse. Water is supplied to 20 farms on which the principal crops are cotton, soya beans and cereals and to the town of St George. The construction of works to extend the area by some 16 farms is in progress.

Emerald Irrigation Area. This scheme, a joint Federal and State undertaking involved the construction of Fairbairn Dam (completed 1972) on the Nogoa River, some 19 kilometres upstream from Emerald. Water from this dam and associated irrigation, drainage and roadworks could ultimately serve 80 or more irrigation farms on which 13,000 hectares could be irrigated annually. In addition, supplies will be provided for coal mining and urban water supply in the Blackwater area.

Bundaberg Irrigation Scheme. This is a joint Federal and State undertaking, estimated to cost \$58.48 million aimed at raising the efficiency and security of the established sugar industry in the region. Phase 1 of the Scheme now under construction involves the construction of Monduran Dam (capacity 585.9 mil. cubic metres) on the Kolan River, tidal barrages on the Kolan and Burnett Rivers, pumping stations and distribution works. The scheme will ultimately provide an assured water supply to 1,485 assignments with a gross area of 48,500 hectares and 6.2 mil. cubic metres annually to augment supplies to the city of Bundaberg.

Irrigation projects

These are schemes established under the *Water Act 1926-1973* where water from storage is released downstream to maintain adequate supplies for private pumping under licence, to land adjacent to the watercourse. Details of existing Irrigation Projects are set out in the following table.

IRRIGATION PROJECTS: QUEENSLAND

Project	Storage	Number of licensed pumps	Annual water allocation	Water supplied 1972-73		
				Irrigation	Other purposes	
			('000 cu m)	('000 cu m)	('000 cu m)	
Warrill Valley	Moogerah Dam	305	10,608	9,921	11,656	Power generation and urban
Mary Valley	Borumba Dam	141	4,575	4,093	2,567	Urban
Upper Condamine	Leslie Dam	72	14,382	10,451	1,472	Urban
Macintyre Brook	Coolmunda Dam	94	4,629	4,999	334	Urban
Upper Burnett	Wuruma Dam	261	25,795	25,733	834	Urban
Lower Lockyer	Atkinson Dam	149	7,994	5,696	..	

Other projects currently under construction or approved are set out below.

Logan River Project. Maroon Dam, under construction on Burnett Creek, a tributary of the Logan River, is designed to permit expansion of irrigation from the present 1,406 hectares to 4,006 hectares along Burnett Creek and the Logan River for about 129 kilometres.

Border Rivers Project. The Dumaresq-Barwon Border Rivers Commission consisting of representatives of New South Wales and Queensland was created to control works on these rivers where they form the boundary between the two States, and to allocate the water. (For details see page 874).

Leichhardt River Project. This scheme, which involves the construction of Julius Dam on the Leichhardt River and a supply system to convey the water to the Mount Isa area is designed to provide water for the rapidly expanding needs of Mount Isa City and Mount Isa Mines Ltd and to maintain a reserve supply for possible other users in the foreseeable future. A contract was let in April 1973 for the construction of the dam. The Mount Isa Water Board was constituted in March 1973, to construct, own and operate the new supply works and to modify, operate and maintain the existing works for bulk supply to Mount Isa Mines Limited and the City.

Blackwater Water Supply. Construction of a supply system with a capacity of 4.6 mil. cubic metres per annum from Bedford Weir to Blackwater and a capacity of 2.2 mil. cubic metres from Blackwater to Leichhardt Mine has been approved and work commenced in December 1972. Initially to supply the Leichhardt Colliery and Town of Blackwater and stock water supplies to rural holdings along the pipe line, the works are estimated to cost \$2.3 million.

Rural, stock and domestic supplies

Rural Water Supply Areas. Improvements to stock and domestic water supplies are assisted by the development of Rural Water Supply Schemes, where water from a central source is distributed through pipelines to individual farms and properties. Investigation and design of these schemes are carried out by the Irrigation and Water Supply Commission. The schemes attract a Government subsidy of 50 per cent of the capital cost, the balance being provided by way of Government guaranteed loans raised by the individual water boards. Operation and maintenance costs and capital charges are wholly met by rates levied on benefited properties. Fifteen schemes are in operation with a total benefited area of 110,933 hectares on 615 rural holdings.

Bore Water Supply Areas. Bore Water Supply Areas are constituted under the Water Act for the purpose of supplying water from artesian or sub-artesian bores to groups of adjoining properties for the watering of stock. The construction or acquisition of a bore and distribution system within an Area is financed by a Treasury loan, and rates calculated on the basis of area benefited are levied annually to meet loan repayments and maintenance and operating costs. Of the 60 Bore Water Supply Areas currently operating in the State, 54 are administered by the Commission and six by local boards elected by the ratepayers within the areas. A total daily flow of 0.1 million cubic metres was distributed through some 3,679 kilometres of drains to serve a benefited area of 1,846,402 hectares on 375 holdings.

River improvement trusts

These trusts are virtually autonomous bodies whose responsibility is to carry out and maintain works to improve stream channels, to increase their flood carrying capacity, to prevent or repair bank erosion and to mitigate flooding. Fifteen trusts are constituted throughout the State.

Drainage areas

Eight drainage areas—five in irrigation areas and three administered by autonomous drainage boards—have been constituted. These Areas served 296 holdings by 265 kilometres of drain; a total area of 24,822 hectares being drained.

Underground water supplies

The availability of underground water in Queensland has played a very big part in the development of the pastoral industry, and of irrigation on individual farms, particularly along the coastal fringe. Underground water is also used very widely for irrigation, stock, and domestic purposes outside the Artesian Basin. Over half the area irrigated in Queensland receives its supplies from underground sources, and in accordance with the requirements of The *Land and Water Resources Development Acts*, 1943 to 1946, the investigation of availability of underground water is being pursued by geological mapping, investigation drilling and hydro-geological assessment. The most important areas where water from this source is used for irrigation are in the following river basins; the Lower Burdekin, the Don (Bowen), the Pioneer, the Callide Valley, the Lower Burnett, many parts of the Brisbane Basin, including the Lockyer, and parts of the Upper Condamine Basin.

Burdekin Delta recharge. For the first time in Australia, the artificial replenishment of underground water supplies has been implemented in the Burdekin Delta. The North and South Burdekin Water Boards divert unregulated supplies of water from the Burdekin River for the purpose of artificially recharging the underground supplies from which some 28,328 hectares of sugar cane and 682 hectares of rice are irrigated and supplies for stock and domestic purposes, including the towns of Ayr and Home Hill are drawn.

Artesian water. The Great Artesian Basin in Queensland consists approximately of the area lying west of the Great Dividing Range, excluding the Cloncurry Mineral Field and the Barkly Tablelands. It comprises about 1,124,000 square kilometres, or about two thirds of the total State area. This part of the State is predominantly pastoral and is mainly dependent for water supplies on artesian and sub-artesian bores, and, where normal surface storage is not readily available, on excavated tanks. At 30 June 1973, a total of 3,275 artesian bores had been drilled in the Great Artesian Basin, of which 2,199 continue to flow, providing a supply of 0.9 million cubic metres per day. Although this supply will continue to diminish for a further 30 to 40 years, after that time a steady and continuous flow of some 0.6 million cubic metres per day is expected to be maintained.

Stock route watering

In 1935 the Trunk Stock Route System was inaugurated and from then on the construction of watering facilities on stock routes was greatly expanded. The Irrigation and Water Supply Commission acts as a constructing authority for the Stock Routes Co-ordinating Board in these matters, and had to 30 June 1973, completed 638 facilities with a further 10 under construction and 7 under investigation. The two authorities mentioned above carry out continuous investigation to ascertain general stock movements so that new facilities may be provided as required.

Farm Water supplies

Under The *Farm Water Supplies Assistance Acts* 1958 to 1965, technical assistance is available to landholders throughout the State on all matters relating to water conservation and utilisation for domestic, stock and irrigation purposes, on individual holdings or groups of holdings, covering construction of farm dams, irrigation bores and stock bores, and pumping and distribution systems. In addition, the Government provides finance to farmers by way of special Agricultural Bank loans, and technical advice on construction and installation. During 1972-73, 899 applications were received for assistance under these Acts, and \$411,578 was paid in advances by the bank, bringing advances over the 15 years of operation of the Acts to \$8,869,310.

South Australia

Administration

All major water resources and most public water supply schemes in South Australia are administered by the Engineering and Water Supply Department under the various statutes mentioned below.

The Waterworks Act, 1932–1974 empowers the Minister of Works to impound or divert the water from any lake, watercourse or underground source for the purpose of establishing and maintaining public water supply schemes to serve proclaimed water districts throughout the State. The Engineering and Water Supply Department administers and operates the great majority of water supplies in South Australia. A feature of these supplies is the extensive networks of pipelines transporting water over long distances from major resources to cities, towns and farmlands as well as numerous separate town and farmland schemes. A few domestic water supply schemes in Government irrigation areas along the Murray Valley in South Australia are administered by the Department of Lands. The Electricity Trust of South Australia administers and operates the water supply of Leigh Creek town and coalfield.

The Water Conservation Act, 1936–1972, relates to the provision of small dams, wells, bores and other waterworks to assist development in the more remote areas of the State or to provide water for travellers and travelling stock in such areas.

Under the *River Murray Waters Act* 1935–1971, which ratifies the River Murray Waters Agreement, the Engineering and Water Supply Department operates and maintains Lake Victoria Storage, nine weirs and locks downstream of Wentworth, N.S.W., and barrages at the River mouth.

The Control of Water Act, 1919–1925 vests the waters of the South Australian section of the River Murray in the Crown and provides the powers to control diversion of water and to take necessary steps for abatement of pollution.

The Underground Waters Preservation Act, 1969–1973 controls the sinking of wells and extraction of underground waters in proclaimed areas to prevent depletion and pollution of these resources. The Act has so far been applied in respect of important water bearing areas in the Adelaide Plains, the South-Eastern region of the State and Eyre Peninsula.

Irrigation

Australian irrigation originated in the upper Murray in South Australia and the Mildura area of Victoria. South Australian irrigation commenced with an agreement between the Chaffey brothers in 1887 whereby an area was made available for the establishment of certain irrigation works at Renmark. From this start government, co-operative and private irrigation areas totalling more than 42,000 hectares have been developed in the South Australian section of the Murray Valley.

The major authorities controlling River Murray irrigation are the Department of Lands which administers government controlled areas totalling 17,000 hectares (under provisions of the Irrigation Act, 1930–1971 and other statutes), and the Renmark Irrigation Trust (founded on the Chaffey brothers' venture) which administers distribution works supplying 4,000 hectares of irrigated land (under provisions of the Renmark Irrigation Act, 1936–1969). In addition some 21,000 hectares of irrigated lands are controlled by smaller co-operatives, development companies and private owners.

In the Government irrigation areas land is leasehold, whereas in the areas controlled by the Renmark Irrigation Trust and other co-operatives with local boards of management the land is freehold.

The irrigation areas comprise high land areas to which water is pumped from the River, and reclaimed swamp lands along the lower section of the River which are watered through sluices in the protecting levees. Considerable importance is placed on adequate drainage of both high lands and reclaimed swamp lands.

The principal high land crops comprise citrus and stone fruits and vines. The reclaimed swamps are used almost exclusively for pasture and fodder crops. However, vegetable crops of various kinds are also important in both types of irrigated lands.

Except for quantities held in various lock pools and natural lakes, no water from the Murray is stored within South Australia for irrigation purposes. Usage of the River is therefore planned on the basis of the minimum monthly flows to which South Australia is entitled under the River Murray Waters Agreement. This factor, plus the need to reserve water for city, town and rural water supply system, has resulted in the expansion of irrigation from the River being rigidly controlled by the government.

Divisions of water for irrigation of areas in excess of 0.4 hectares are made under licence issued under the Control of Waters Act, 1919-1925. Irrigation offtakes are metered but no charge is made for water taken unless licensed quotas are exceeded. However, block holders in government and trust operated irrigation schemes are rated or charged by measure by the administering authorities to recoup pumping and distribution costs.

In addition to irrigation from the River Murray there are considerable areas irrigated from underground sources by individual landholders in South Australia. The most important of these areas comprise 2,500 hectares of market gardens on the northern Adelaide plains and 4,000 hectares of pastures, fodder and seed crops, and vines in the Padthaway district of the south-eastern region.

Irrigated culture

The following table shows details of the area of crops and pasture and the methods employed on land under irrigated culture during the 1972-73 season.

AREA OF LAND UNDER IRRIGATED CULTURE: SOUTH AUSTRALIA, 1972-73
(Hectares)

	Method of irrigation					Total area
	Spray	Furrow	Flood	Trickle	Multiple methods	
Crops—						
Cereals	616	..	217	..	..	833
Fruit	9,169	3,069	115	603	171	13,127
Vegetables	5,506	612	72	23	36	6,249
Grapevines	4,530	10,368	532	1,429	301	17,160
Other crops(a)	766	11	412	1	4	1,194
Total crops	20,587	14,060	1,348	2,056	512	38,563
Lucerne	13,708	..	3,513	..	1	17,222
Pastures	9,852	..	17,468	..	45	27,365

(a) Includes fodder crops.

Water supply schemes

Adelaide Metropolitan Water Supply. Adelaide and surrounding areas of urban and rural development extending 80 kilometres to the south and 80 kilometres to the east and north receive water from nine reservoirs in the nearby Mount Lofty Ranges and by means of two pipelines pumping from the River Murray at Mannum and Murray Bridge.

The principal sources of supply for the reservoirs are the Rivers Torrens, Onkaparinga, South Para and Myponga. These have been developed to provide a total storage capacity of 188.7 mil. cubic metres in the nine reservoirs. A tenth reservoir to provide a storage of 18.0 mil. cubic metres on the Little Para River is under construction.

The pipeline from Mannum has a nominal annual capacity of 118.0 mil. cubic metres and the one from Murray Bridge an annual capacity of 163.0 mil. cubic metres. Actual quantities pumped however, depend upon intakes of reservoirs and consumption as influenced by climatic and demand factors. On the average the Adelaide water supply system currently depends upon the River Murray for about 40 per cent of its supply, with the percentage rising with urban and industrial development.

Water consumption for the whole area in 1972-73 was 155.1 mil. cubic metres, the amount pumped from the Murray through the two pipelines being 51.6 mil. cubic metres.

Capital works are financed principally from State loan funds. The net loan funds invested at 30 June 1973 in the Adelaide metropolitan water supply system was \$145,156,000. New works in progress include the Little Para dam estimated to cost \$23,000,000 and a ten year program to provide water treatment works for all sources of supply at an estimated cost of \$73,000,000. Australian Government financial assistance is being provided for the latter program.

Country reticulation supplies. Areas extending to a distance 145 kilometres north of Adelaide are supplied from the Warren, Barossa and South Para Reservoirs (61.2 mil. cubic metres) in the Barossa Ranges. Supplies to these areas are supplemented by River Murray water delivered into the Warren Trunk Main by a pipeline extending from Swan Reach to a point near Stockwell. This pipeline has a nominal capacity of 24.9 mil. cubic metres per year. Areas further north are supplied from Beetaloo,

Bundaleer and Baroota Reservoirs (capacity 16.2 mil. cubic metres) and the duplicate Morgan-Whyalla Pipeline system which can supply up to 65.7 mil. cubic metres per year from the River Murray. A large part of Eyre Peninsula is supplied through the 386 kilometres Tod Trunk Main and branch mains which distributes water from the Tod Reservoir (11.3 mil. cubic metres) and the Uley-Wannilla, Lincoln and Polda underground basins. Along the River Murray all towns are supplied from the River with reticulation to surrounding farmlands up to 50 kilometres distant in some cases. A pipeline extended from Tailem Bend to Keith and a network of branch mains provide the means of conveying River Murray water to numerous towns and large areas of farmlands in the upper south-east.

Surface and underground resources have been developed to supply most country centres not covered by the larger schemes. Victor Harbor and adjoining south coast resort centres are supplied from reservoirs and the River Murray. A reservoir on Kangaroo Island supplies Kingscote and adjacent farmlands. Underground resources of the lower south-east supply all towns in the region, the city of Mount Gambier and nearby farmlands being reticulated from the well-known Blue Lake. At the far northern opal mining town of Coober Pedy a reverse osmosis desalination plant provides a potable supply from brackish groundwater. Other centres in the far north obtain supplies from the Great Artesian Basin.

Net loan funds invested in country water conservation and distribution works at 30 June 1973, amounted to \$142,977,000 (exclusive of river control and irrigation works on the River Murray). The various water supply systems contain approximately 14,300 kilometres of water mains from which consumption in 1972-73 was 74.0 mil. cubic metres.

Works in progress include extension of reticulation works on central Eyre Peninsula, for which an Australian Government grant of \$2,100,000 is being provided, development of Uley South Underground Basin on southern Eyre Peninsula to augment the supply at Port Lincoln, and upgrading of various other country systems to meet current demands.

Underground water

For information on underground water resources in South Australia *see* Year Book No. 55 and earlier issues.

Farm water schemes

The Department of Mines gives assistance to individual farmers in the provision of supplies from underground sources, and the Department of Agriculture provides an advisory service on water conservation and irrigation designs on farms, and on the suitability of surface and underground water for irrigation and stock purposes. In addition, a great part of the farming areas is supplied by the Engineering and Water Supply Department with water under pressure from extensive distributions systems connected to various reservoirs and the Murray River.

South-eastern drainage

In the south-east of South Australia it has been necessary to construct drainage schemes to dispose of surplus water from areas where a series of valleys or flats is separated by low ranges, parallel to the coastline, which prevent natural drainage. The Millicent Drainage System, completed in 1885, reclaimed about 40,500 hectares. The South-eastern Drainage Area System, which is controlled by the South-eastern Drainage Board, comprises drains constructed by the State Government at public expense, plus those undertaken by the Government in co-operation with the landholders. The area is bounded on the east by the State boundary, and on the west by the sea coast. It extends from about 89 kilometres north of Kingston, southerly to near Millicent and Kalangadoo. Up to 1948 about 692 kilometres of drains had been provided at a cost of \$1,441,752. These were of a developmental nature intended more to promote the rapid removal of floodwaters than to provide a complete system of drainage. Since 1948 the complete drainage of the Biscuit, Reedy Creek and Avenue Flats in the Western Division has been carried out. The southern section of 105,200 hectares involved the excavation of 6,193,000 cubic metres in providing 552 kilometres of new or enlarged drains, whilst the northern area of 56,650 hectares required the excavation of 2,333,000 cubic metres in the construction of 159 kilometres of drain.

The drainage of 294,200 hectares in the Eastern Division of the south-east, situated east of Bakers Range and extending from near Kalangadoo to north of Naracoorte, was commenced, in 1960 and completed in 1970. The work required the construction of a main diversion drain (consisting of the enlargement of 39 kilometres of existing drain and the construction of 35 kilometres of new drain) from the sea at Beachport to the Naracoorte-Mount Gambier railway line near Struan. The provision of new branch drains and the enlargement and extension of existing branch drains completed the approved works. A total excavation of 5,581,000 cubic metres over a length of 189 kilometres of new or enlarged drains was involved.

The capital cost of drainage in the South-eastern Drainage Area System to 30 June 1973 was \$18 million, and the length of drains constructed was 1,408 kilometres. An extensive system of private drains (many of which discharge into drains constructed under Government authority) also exists in the south-east of the State.

Murray River Irrigation Areas

Where irrigation water in excess of plant requirements has been applied, perched water tables develop. Rising to the level of tree roots, these cause the death of orchards from salination and water-logging. Most orchards and vineyards are now drained by plastic and tile drainage systems, thus restoring their health and productivity. Disposal of drainage water is achieved by pumping to basins on river flats where it evaporates, or is discharged into the river when it is in flood. It may also be discharged into underlying sand and limestone aquifers. The usefulness of these aquifers is declining as they are becoming fully charged with water.

Western Australia

Administration

The Minister for Water Supply, Sewerage and Drainage administers the departmental irrigation schemes under the *Rights in Water and Irrigation Act, 1914-1971*. He is advised by an Irrigation Commission representing the local irrigationists and government, technical and financial branches. He also administers, under the *Country Areas Water Supply Act, 1947-1964*, the water supplies to certain country towns and reticulated farmland. As Minister for Works he controls minor non-revenue producing supplies to stock routes and a few mines and agricultural areas with their associated communities. A small number of town supplies are administered by local boards under the *Water Boards Act, 1904-1969*, which provides a large degree of autonomy with ultimate Ministerial control.

Irrigation

Irrigation schemes have been established by the Government on the coastal plain south of Perth in the Waroona, Harvey and Collie River Irrigation Districts between Waroona and Dardanup, the water being channelled from dams in the adjacent Darling Range.

Logue Brook Dam with a capacity of 24.3 mil. cubic metres, Harvey Weir (8.0 mil. cubic metres) and Stirling Dam (57.0 mil. cubic metres) supply the Harvey Irrigation District, the rated area of which is 5,593 hectares. The Harvey District links up with the Waroona Irrigation District, which is served by Waroona Dam (15.0 mil. cubic metres), Drakes Brook Dam (2.3 mil. cubic metres) and Samson Brook Dam (9.2 mil. cubic metres) and comprises a rated area of 1,427 hectares. Wellington Dam on the Collie River with a capacity of 185.2 mil. cubic metres serves an area of 4,751 rated hectares in the Collie River Irrigation District. Pastures for cattle comprise 91.9 per cent of water usage in these districts. Glen Mervyn Dam (1.5 mil. cubic metres) stores water for regulated release down the Preston River for irrigation of orchards and crops when the natural summer stream flow is insufficient to meet the demand.

Since the mid 1930s, a centre of tropical agriculture has been developed at Carnarvon, near the mouth of the Gascoyne River. Private pumping from sands of the Gascoyne River is the principal source of irrigation water for the 146 plantations. Because of the high risk of drawing in surrounding saline ground waters by over-pumping, the usage of water by the planters is controlled strictly by the Government. The Government is developing up-river sources and delivers water by pipeline to 65 plantations in the district. Bananas for the Perth market and fruit and vegetables for the Perth and Adelaide markets are the principal crops. A tropical research station is maintained at Carnarvon by the Department of Agriculture.

A project has been embarked upon to provide water supplies for irrigation in the area traversed by the Ord River in the Kimberley Division. The project provides for the eventual development of an area of 72,000 hectares of land agriculturally and topographically suitable for irrigation. Nearly one-third of the suitable land is within the Northern Territory.

The first stage, in which water was supplied to 30 farms averaging 270 hectares plus a 970-hectares pilot farm from the Kununurra Diversion Dam with a capacity of 98.7 mil. cubic metres, was completed in 1965. Cotton is the principal crop but grain sorghum and fodders for cattle fattening are also important. Completion in 1971 of the Ord River Dam which stores 5,674 mil. cubic metres in Lake Argyle has allowed expansion of the area to be irrigated into the second stage. Five farms averaging 388 hectares were allocated in 1973.

On the Liveringa flood plain, water is diverted from the Fitzroy River into a dam on Uralla Creek, which together with a natural storage of about 1.5 mil. cubic metres, provides for irrigation at Camballin, 105 kilometres south-east of Derby. Grain and fodder sorghums are grown in the area.

Irrigated culture

The following table shows details of the area of crops and pasture and the methods employed on land under irrigated culture during the 1972-73 season.

AREA OF LAND UNDER IRRIGATED CULTURE: WESTERN AUSTRALIA, 1972-73
(Hectares)

	<i>Method of irrigation</i>					<i>Total area</i>
	<i>Spray</i>	<i>Furrow</i>	<i>Flood</i>	<i>Trickle</i>	<i>Multiple methods</i>	
Crop—						
Cereals	51	1,138	2,038	..	1	3,228
Cotton . . . . .	..	..	3,861	..	..	3,861
Fruit	3,269	258	141	1,093	272	5,033
Vegetables—						
Potatoes	1,745	14	2	4	24	1,789
Other	1,541	551	100	24	66	2,282
Grapevines	368	28	33	139	27	595
Other crops(a)	359	50	300	..	6	715
Total crops	7,333	2,039	6,475	1,260	396	17,503
Lucerne	741	2	35	..	3	781
Pastures	1,310	2,484	10,651	..	172	14,617

(a) Includes fodder crops.

Country water supplies controlled by Department of Public Works and Water Supply

Since 1947 enlargement and extensions of the Goldfields and Agricultural Water Supply and the development of the Great Southern Towns Water Supply have been carried out, mainly in accordance with a project known as the Modified Comprehensive Scheme. Under this scheme water has been supplied to towns and farms in an area of 1,700,000 hectares in mixed farming (cereal and sheep) districts of Western Australia. The modified scheme was completed in 1961 at a cost of \$20.6 million, of which the Australian Government contributed \$10 million under the *Western Australia Grant (Water Supply) Act 1948*. A further request was made by the State Government in 1963 for a grant of \$10.5 million representing half the estimated cost of proposed extensions which would increase by 1,500,000 hectares the area served by the scheme. The Australian Government agreed to provide assistance in the form of an interest-bearing loan up to a maximum of the amount requested, advances to be made during a period of eight years commencing 1965-66. Legislative authority for the loan is given by the *Western Australia (South-west Region Water Supplies) Agreement Act 1965*.

Mundaring Reservoir on the Helena River, 42 kilometres from Perth, is the source of water supplied to the Eastern Goldfields. It has a capacity of 77.0 mil. cubic metres and is connected to Kalgoorlie by a pipeline with extensions to towns and agricultural areas. At 30 June 1973 the Goldfields and Agricultural Water Supply was serving 112 towns and localities, and water was being reticulated to farms in an area of 2,300,000 hectares. The total length of pipelines was 7,883 kilometres and the number of services was 27,002. Consumption during 1972-73 including supplies drawn from local schemes and from the Metropolitan Water Supply, was 17.7 mil. cubic metres.

The Great Southern Towns Water Supply pipes water from Wellington Dam to towns on the Great Southern Railway from Brookton to Katanning as well as a number of other towns. At 30 June 1973 the Supply was serving 30 towns and water was being reticulated to 600,000 hectares of farmland. The total length of pipelines was 1,860 kilometres, and the number of services was 10,580. Consumption during 1972-73, including supplies drawn from local sources, was 4.1 mil. cubic metres.

One hundred and thirty-two local schemes supply water from stream flow, dams, tanks, wells, and bores, mainly to country towns. At 30 June 1973 the total length of water mains was 2,007 kilometres and the number of services was 36,232.

Other country water supplies

As well as the schemes controlled by the Department of Public Works and Water Supply, there are four local Water Boards which draw supplies from stream flow, dams, wells, and bores. In addition, some local authorities supply water within their boundaries. The Forests Department, sawmilling companies, and mining companies operate schemes to supply water to their towns and

operations. Railways of the Australian and State Governments make independent provision for supplies of water for their own purposes, although considerable additional quantities are consumed by the railways from other sources, such as those controlled by the Department of Public Works and Water Supply and the Metropolitan Water Supply, Sewerage and Drainage Board.

Underground water

Extensive use is made of underground water for town water supplies, household gardens, market gardening, orchards, pastures and stock water. Artesian wells throughout the State and non-artesian wells within 'declared' areas must be licensed under the *Rights in Water and Irrigation Act, 1914-1971*.

Tasmania

Main purposes of water conservation and utilisation

Because of the generally more adequate rainfall in Tasmania, scarcity of water is not such a problem as it is in most mainland areas, though not all streams are permanently flowing. The only large scale conservation by reservoirs is for hydro-electric power generation, but there are some moderately sized dams built by mining and industrial interests and by municipal authorities for town water supplies. 'Run of the river' schemes are quite adequate for assured supply in many municipalities. The main supply for Hobart and adjacent municipalities originates from a 'run of the river' scheme based on the Derwent River. The river is controlled in its upper reaches by eight dams, built for hydro-electric power generation, and these tend to stabilise river flow.

Until a few years ago irrigated areas were negligible except for long established hop fields, but there is a rapidly expanding use of spray irrigation on orchards, pastures, potatoes and beans. Until recent years there has been almost complete dependence on natural stream flows, but the need for some regulating storages has become apparent. Increasingly, farmers are constructing storages of their own, and the extension of this practice is foreseen as the logical solution in most areas, as valleys are narrow and steep sided. Single large reservoirs cannot economically serve large areas of suitable land, as nearly every valley is separated from others by pronounced hills, prohibiting the construction of cross-country channels.

Underground water suitable for stock, minor irrigation works and domestic use is exploited in the consolidated rocks of southern, midlands and north-western Tasmania. In the south and midlands nearly all groundwater is obtained from Permian and Triassic rocks. In the north-west, water is recovered from a variety of rocks ranging from Precambrian dolomites, quartzites and schists to Tertiary basalts and Quaternary sands. The highest yields are obtained from the dolomites and the basalts. In the central north and north-east unconsolidated Tertiary clays and gravels yield water of variable quality, and in some coastal areas, notably King and Flinders Islands, water is obtained from Aeolian sands.

The Mines Department is charged with the investigation of underground water resources. There is a great reserve of untapped permanent streams in the western half of the State, which is largely unsettled. The State's largest rivers discharge in the west, but diversion to the eastern half of the watersheds is not regarded as practicable.

Administration

In Tasmania, water supply was once exclusively the responsibility of local government authorities, but two statutory authorities, the Metropolitan Water Board and the Rivers and Water Supply Commission, now operate bulk supply schemes, piping water for distribution by the local government authorities in the Hobart and Launceston regions, and directly to certain industrial consumers.

Metropolitan Water Board. The overall control of the supply of water to the cities of Hobart and Glenorchy and the municipalities of Kingborough and Clarence is vested in the Metropolitan Water Board, the local government authorities retaining primary responsibility for reticulation and sales to consumers. Water is also supplied by the Board to urban areas in the Sorell, New Norfolk and Brighton municipalities. The principal source of water for urban Hobart is the Derwent River from which the Metropolitan Water Board operates two schemes. The West Derwent Water Supply supplies the cities of Hobart and Glenorchy and the Kingborough Municipality. Water for this scheme is drawn from the Derwent at the Bryn Estyn pumping station. The Southern Regional Water Supply scheme, originally constructed by the Rivers and Water Supply Commission to serve Clarence Municipality and other areas on the eastern shore of the Derwent, draws its water from the Derwent at Lawitta (almost directly opposite the intake for the West Derwent Water Supply Scheme). The responsibility for loan raising, debt servicing and extensions to the schemes rests with the Metropolitan Water Board.

Rivers and Water Supply Commission. The Commission is empowered by the *Water Act 1957* to take water at streams and lakes, or to issue others with licences to do so; licensing covers supply to specific industries and municipalities as well as irrigation. The Commission is concerned with drainage trusts' operations, river improvements (including repairs after flood damage), stream gauging, its own regional water schemes, and with water supply, sewerage and drainage of towns. It operates in a similar manner to the Metropolitan Water Board in controlling the water schemes serving the East Tamar region (North Esk Regional Water Supply), the West Tamar area (West Tamar Water Supply) and the Prosser River Scheme, which was originally constructed to supply water to a sodium alginate industry at Louisville near Orford and to supplement the water supply of the township of Orford (in December 1973 the sodium alginate industry ceased production). The North Esk Regional Water Supply was constructed to meet industrial requirements of the alumina refinery and other industries at Bell Bay, and to provide bulk supplies to surrounding municipalities on the eastern bank of the River Tamar. The West Tamar Water Supply was constructed primarily to meet domestic requirements of urban areas in the Beaconsfield municipality. The local government authorities retain primary responsibility for reticulation and sale to consumers, except to certain industrial users.

In municipalities not serviced by the Metropolitan Water Board or the Rivers and Water Supply Commission, the supply of water is a function of the local municipal council. Where the construction of water and sewerage schemes is beyond the financial capacity of a local government authority, or if it requires assistance to pay for water supplied from regional schemes, the Commission may make recommendations to the Minister for payment of a subsidy.

Industrial water schemes

Four principal industrial water schemes have been installed privately—for a paper mill near Lawitta on the Derwent River, for a paper mill at Burnie using water from the Emu River, for another at Wesley Vale using water from the Mersey River, and for a factory at Heybridge reticulating water from Chasm Creek. The State Government has constructed some water schemes for use primarily for industrial purposes. These include the scheme serving the alumina refinery at Bell Bay referred to above, and a storage supplementing the summer flows of the Kermadie River for use by a wood-pulping plant at Geeveston.

Irrigation

The Cressy-Longford Irrigation Scheme was officially opened in March 1974 and services approximately 65 farms within the irrigation district. The farms are supplied with irrigation water by either flood or spray sprinkler systems. A further 30 farms, on the fringes of the irrigation district, will benefit from augmented river flows. This scheme, which was designed and is operated by the Rivers and Water Supply Commission, involves the diversion of water from the tailrace of the Poatina hydro-electric power station through some 97 kilometres of earthen channels to irrigate eventually some 8,094 hectares. At least half this area will be served by gravity and it is estimated that under maximum development 7.4 mil. cubic metres of water annually would be available to farmers both inside and outside the irrigation district.

With the exception of the Cressy-Longford Scheme and a privately owned scheme at the Lawrenny estate at Ouse there are no other extensive irrigation works utilising one common source of water supply in Tasmania. A large portion of the area under irrigation in the State is watered by private schemes pumping water from natural streams.

Irrigated culture

The following table shows details of the area of crops and pasture and the methods employed on land under irrigated culture during the 1972-73 season.

AREA OF LAND UNDER IRRIGATED CULTURE: TASMANIA, 1972-73
(Hectares)

	<i>Method of irrigation</i>					<i>Total area</i>
	<i>Spray</i>	<i>Furrow</i>	<i>Flood</i>	<i>Trickle</i>	<i>Multiple methods</i>	
Crops—						
Cereals	726	..	33	..	16	775
Fruit	2,904	37	137	80	143	3,301
Vegetables—						
Potatoes	2,290	8	..	2	13	2,313
Other	4,815	11	..	5	9	4,841
Other crops(a)	1,504	213	110	26	12	1,865
Total crops	12,239	269	280	113	193	13,095
Lucerne	1,343	24	43	..	4	1,414
Pastures	8,022	345	4,687	..	83	13,137

(a) Includes fodder crops.

Northern Territory

Information on climatic conditions will be found in the chapter Climate and Physical Geography of Australia, and a brief outline of contour and physical characteristics in Chapter 30, The Territories of Australia.

Administration

Under the *Control of Waters Ordinance* 1938-1971 of the Northern Territory, natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases). The diversion of water is prohibited except under prescribed conditions. The Ordinance requires that drilling for ground-water be carried out only by drillers who are registered under the Ordinance. Registered drillers are required to provide the Government with information on bores drilled including the location, depth and size of bore, strata encountered and water produced. In particular areas, described as Water Control Districts, where stricter control is necessary the construction or use of a well or water bore without a permit can be prohibited.

Under the *Water Supplies Development Ordinance* 1960-1971 any landholder engaged in pastoral or agricultural production may seek information or advice from the Commissioner of Water Development who is appointed under the Ordinance. He may also apply for an advance towards the cost of work proposed to be carried out. The Ordinance also provides for a refund to the landholder of the cost of drilling an unsuccessful bore where the landholder had applied to the Commissioner for advice on its construction and has carried out all drilling operations in accordance with advice given.

There is a Water Resources Branch of the Department of the Northern Territory under the control of a Director. The Branch carries out systematic stream gauging, the collection of data relating to the quantity and quality of surface and groundwater, the planning of water use for industrial, irrigation and town water supplies, and flood prevention and control. It also provides a general advisory service to the public on water resources and water conservation by providing information on the geology of the Territory, the prospects of obtaining groundwater, the possible location of bore sites, the method of drilling and equipping bores, information on stream flows, surveys of dam sites, the design of water supply schemes and reticulation layouts, and on the chemical and bacteriological quality of water supplies. It is involved in water pollution studies and control, and carries out environmental assessments of water and related developments. The Branch administers the licence and permit provisions of the Control of Waters Ordinance.

Underground water

For information on underground water resources in the Northern Territory see Year Book No. 55 and earlier issues, and the Australian Water Resources Council's 1972 publication, *Groundwater Resources of Australia*.

At 30 June 1973, 8,522 bores and wells were registered in the Northern Territory. Of these 4,855 were for pastoral use, 430 for agricultural use, 682 served town domestic water supplies, 140 were in use on mining fields, 973 were investigation bores, 431 were Government established stock route bores and 741 were classified under other uses. These include successful bores which have collapsed and bores which were unsuccessful owing to drilling difficulties, or to insufficient quantity or poor quality of underground water.

Community water supplies

The largest water conservation projects in the Territory are the Darwin River Dam (259.0 million cubic metres) and the Manton Dam (15.7 million cubic metres) which both serve Darwin with a reticulated water supply. Groundwater from McMinns Lagoon area can be used to augment supply.

Most other towns and communities are supplied by groundwater. A few are supplied by both ground and surface waters depending on relative quality variations throughout the year.

Surface water measurement

The hydrological investigations required in the Northern Territory as part of the National Water Resources Assessment Programme are being carried out by the Water Resources Branch. The program for the Northern Territory includes establishment of base gauging stations and pluviograph rainfall recorders. In particular areas of development where water supply or irrigation proposals require special or extra surface water data, supplementary gauging stations are built to obtain this information. At 30 June 1973, the Northern Territory stream-gauging network comprised 274 operating stations; of these 209 were base gauging stations and 65 were supplementary gauging stations.

Irrigation for agricultural purposes in the Territory is not extensive, being confined to isolated areas near the Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine River, Wickham River, Douglas River, Edith River and Alice Springs area, with only small acreages being utilised. In the Territory 91 licences to divert water from streams were current at 30 June 1973. The total licensed area for irrigation is 2,554 hectares, but the actual area irrigated is less than this. There are also a number of farms irrigated from bore supplies, particularly in the Alice Springs area. Purposes for which irrigation water is used include the growing of fruit, vegetables, crops, fodder and pastures, and also dairying and mixed farming.

Both the Daly and Adelaide Rivers appear to offer considerable potential for irrigation development with regulation of the rivers. Extensive investigations are being conducted into possible dam sites and areas of land suitable for irrigation in the region, and there is a need for other associated studies. Irrigation trials are in progress using water from the high-production bores in the Daly Basin. Further exploratory drilling in this area is being carried out. There is an increasing demand for water resource assessment studies and assistance for relatively small irrigation projects.

Investigations are continuing into areas of the Northern Territory which may be suitable for irrigation from the main storage on the Ord River in Western Australia.

Australian Capital Territory

The climate of the Australian Capital Territory with its moderate rainfall and high evaporation over the growing season is such that water conservation and irrigation are practised.

Groundwater in the A.C.T. and environs occurs mainly in fractures, joints and weathered zones of crystalline rock such as porphyry, granite, limestone and metasediments. Alluvial aquifers are restricted to the Lake George basin and small areas along mature sections of the Molonglo and Murrumbidgee Rivers. Very minor perched aquifers occur. Recharge mainly takes place in the cooler months of the year.

Currently there are 103 bores for all purposes in the A.C.T.; 69 cater for domestic, stock and irrigation purposes, four are for industrial purposes and 30 are observation bores which the Bureau of Mineral Resources has progressively established over the past 12 years as part of its policy of assessing the groundwater resources of the region and gathering basic hydrogeological data. The yield from the bores ranges mainly from 0.45 to 8.18 cubic metres per hour.

In 1972-73 a total area of 386 hectares was under irrigated culture in the A.C.T. The crop areas were orchards, 7 hectares; vegetables, 45 hectares; nurseries, 3 hectares; lucerne, 180 hectares; and pastures accounted for 150 hectares. Of the total area irrigated, 329 hectares was irrigated from surface sources, 53 hectares from bores and 4 hectares from the reticulated water supply.

Control of irrigation and farm water supplies is exercised by the Conservation and Agriculture Branch of the Department of the Capital Territory. The Bureau of Mineral Resources of the Department of Minerals and Energy provides technical advice on groundwater, and occasionally on run-off, to landholders.

Water conservation on farm holdings was shown to be deficient in the severe 1965-68 drought when stock were moved to areas outside the A.C.T. Improvements by the provision of additional or larger farm dams and of bores have been made in recent years.

Papua New Guinea

Rainfall in Papua New Guinea varies considerably from approximately 6,100 millimetres near Lindenhafen (New Britain) and 5,840 millimetres at Kikori (Papua) to about 1,780 millimetres near Marienburg (New Guinea) and 1,020 millimetres at Port Moresby (Papua). For a general description of these territories *see* Chapter 30, The Territories of Australia of this Year Book. Irrigation has not been developed on any organised basis owing to the availability of high rainfall and the nature of agricultural development.

Papua New Guinea is well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to over 4,250 metres, but complete data regarding water resources are not available. During 1972-73 the Government continued the development of a national network of stream-gauging stations which can be used in assessing the water resources of Papua New Guinea, while continuing to collect more detailed hydrological data for proposed hydro-electric projects.

The largest rivers in the Territory include the Fly (about 1,100 kilometres long, situated in the Western division of Papua), the Sepik (about 1,100 kilometres), the Ramu (about 725 kilometres), the Purari (about 485 kilometres), and the Markham (about 180 kilometres). The main water conservation interest in New Guinea at present is the hydro-electric potential, which is extensive. An outline of schemes at present in operation is given in Chapter 30, The Territories of Australia.

CHAPTER 24

FORESTRY

Source of statistics

Statistics relating to the forest resource have been derived from data presented to the Forestry and Wood-based Industries Development Conference, Canberra, 1974 by various authorities concerned with forestry administration and by private forestry companies. Other information on forested areas has been provided by the Forestry and Timber Bureau. Statistics of timber and by-products have been compiled from the annual factory collections undertaken by the Statisticians in the several States. Figures of production of gums, resins and tanning barks have been provided by the State forestry authorities. Data of imports and exports of forest products and timber products have been compiled by the Commonwealth Statistician as part of the statistics of overseas trade. The figures shown relate, in general, to years ended 30 June.

Forestry in Australia

Objects of forestry

The main object of forestry authorities is to manage the forests of the country in a manner that will provide maximum benefits, both direct and indirect, for the community. The authorities aim to promote the multiple use concept in management under which forests remain in perpetuity as sources of valuable raw material, areas of natural beauty, sanctuaries for fauna and flora, and areas for scientific investigation and watershed protection. The provision of special protected areas such as forest parks for recreational use and for the conservation of plants and animals is an objective. Forestry also aims at improving existing forests and woodlands by properly controlled harvesting, by protection from such destructive agencies as fire, insects and diseases, and by inducing regeneration. The provision of a partial tree cover on denuded lands where this cover is necessary for protective purposes, and a complete cover when the land is more suited under forest than under other land use are further aims of forestry.

General account of forests and timbers

The area of land in Australia suitable for the production of commercial timber as a primary crop is very small in comparison with the size of the continent. Productive, or potentially productive, forests cover 42.5 million hectares, and of these 99 per cent are natural forests. 35 million hectares of the natural forests are dominated by eucalypts.

Eucalypts. The genus *Eucalyptus* is remarkable in that it includes some 500 known species, ranging in size from the mighty forest giants, mountain ash (*E. regnans*) of Victoria and Tasmania, and karri (*E. diversicolor*) of Western Australia, down to the small mallee species which inhabit vast areas of the inland. The habitats range from the inland plains to the high mountain areas in the Australian Alps, and from areas with the annual rainfall as low as 250 mm to those where it is 4,000 mm. Of the 500 species, only about 100 are used for sawmilling, and not more than 40 of these are exploited extensively.

The better class of eucalypt forest is concentrated mainly in the higher rainfall areas such as the east coast, the highlands of southern New South Wales, Victoria and Tasmania, and the south-western corner of Western Australia. The more important species include blackbutt (*E. pilularis*), tallowwood (*E. microcorys*), flooded gum (*E. grandis*), and red mahogany (*E. resinifera*) of New South Wales and Queensland; alpine ash (*E. delegatensis*) of New South Wales, Victoria and Tasmania; mountain ash (*E. regnans*), messmate (*E. obliqua*) and blue gum (*E. bicostata*) of Victoria and Tasmania; and karri (*E. diversicolor*) of Western Australia. For height and grandeur, mountain ash and karri are unequalled among the broadleaved trees of the world and are excelled only by a few North American coniferous (softwood) species.

In the coastal regions with lower rainfall the eucalypt forests contain many durable species such as the ironbarks, grey gums and bloodwoods of the east coast, and jarrah (*E. marginata*) and tuart (*E. gomphocephala*) of Western Australia. The spotted gum (*E. maculata*) occurring in New South Wales and Queensland is another example.

Along most of the inland streams and adjacent flood-plains there are riverain forests consisting mainly of river red gum (*E. camaldulensis*), a very durable tree which has supplied large quantities of sawn timber, railway sleepers and fence posts.

Eucalypts also occur in open forest and savannah woodland formations in areas receiving a reliable rainfall of about 250 to 500 mm per annum, as on the goldfields of Western Australia where salmon gum (*E. salmonphloia*), brown mallet (*E. astringens*) and wandoo (*E. wandoo*) occur. These trees are of considerable value for firewood, as mining timbers and for fencing. Minor forest products such as sandalwood, tan bark, essential oils, etc., also come from isolated areas in this type of country, and in the more arid areas.

Other broadleaved timbers (hardwoods). Broadleaved genera other than *Eucalyptus* cover a comparatively small portion of the forested land in Australia; however, the areas concerned provide a great variety of timbers suitable for a multitude of uses. There are two basic types of forest containing supplies of broadleaved timbers other than eucalypts, namely, the tropical and sub-tropical rainforests of coastal Queensland and New South Wales and the temperate rainforests of southern Victoria and Tasmania, both of which yield species known collectively as rainforest or brushwood species.

The tropical and sub-tropical rainforest along the eastern coast of Australia contains a large number of different species. Tropical rainforest occurs in northern Queensland in the vicinity of Cairns and on the Atherton Tableland, providing such well-known cabinet woods as Queensland maple (*Flindersia brayleyana*), Queensland walnut (*Endiandra palmerstonii*) and the silky oaks. The sub-tropical rainforest found in southern Queensland and northern New South Wales yields the tulip oak, crab apple (*Shizomeria ovata*) and white beech (*Gmelina leichhardtii*). Coachwood (*Ceratopetalum apetalum*) and sassafras (*Doryphora sassafras*) occur in regions to the south near Dorrigo and have yielded valuable timber for many years.

Temperate rainforest which is to be seen in southern parts of Victoria and western Tasmania consists mainly of myrtle beech (*Nothofagus cunninghamii*), but produces also southern sassafras (*Atherosperma moschata*) and blackwood (*Acacia melanoxylon*).

Turpentine (*Syncarpia glomulifera*), an excellent harbour pile timber resistant to marine borer attack, and brush box (*Tristania conferta*), a superior structural and decking timber, are found in association with some eucalypts in the wetter rainfall areas on the north coast of New South Wales and in Southern Queensland.

Conifers (Softwoods). One of the most important species of native conifers is white cypress pine (*Callitris glauca*). The main cypress pine forests of commercial value occur in New South Wales and southern Queensland west of the Great Dividing Range. The trees are comparatively small, but the timber has particular value owing to its durability including resistance to termites. It is suitable for use as scantlings, flooring, linings, weatherboards, poles, and posts. As much of the area originally covered by cypress pine has been cleared for wheat farming and grazing, the production from the remaining State forests is now strictly regulated to ensure a continuous supply.

Another important native conifer is hoop pine (*Araucaria cunninghamii*), which occurs naturally in the sub-tropical rainforest of southern Queensland and northern New South Wales associated with tulip oak, crab apple, white beech, coachwood, and sassafras. The greater part of the original hoop pine forests has been exploited, but considerable areas have been replanted to this species in Queensland and, to a lesser extent, in New South Wales.

Other native conifers which have played a useful but minor part in the Australian timber industry include bunya and kauri pines (*Araucaria bidwillii* and *Agathis palmerstonii*) of Queensland, and celery-top, Huon and King William pines (*Phyllocladus asplenifolius*, *Dacrydium franklinii* and *Athrotaxis selaginoides*) of Tasmania. Kauri pine is found in the tropical rainforest of northern Queensland in association with non-eucalypt broadleaved trees, while bunya pine occurs in the sub-tropical rainforests. In the temperate rainforests of Tasmania celery-top, Huon and King William pines are found in association with myrtle beech, southern sassafras and blackwood.

Extent of forested areas

Estimates prepared for the Food and Agriculture Organisation World Forestry Inventory, 1970 gave the total area of forests plus other wooded areas as 137.7 million hectares. Resource data prepared for the Forestry and Wood-based Industries Conference, 1974 show the total area of forest as 42.5 million hectares based on a definition of forest which included plantations, native forest with an existing or potential mature height of 20 metres or more, and cypress pine forest in commercial use, regardless of height. The difference between the areas revealed by the two surveys is largely explained by the fact that the definition of 'forest' was changed considerably between the two reference dates. The following tables show classifications of total forest area in Australia by forest type and by ownership.

CLASSIFICATION OF FOREST AREAS BY FOREST TYPE, 30 JUNE 1971

(Source: Forwood Conference, 1974)(a)

('000 hectares)

Forest type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Rain forest	300	..	1,068	..	..	456	37	..	1,861
Eucalypt—									
Productivity(b) I	1,183	644	212	..	213	457	..	..	2,709
" " II	(c)3,678	4,582	1,361	..	2,777	1,838	..	(c)	14,237
" " III	8,348	559	3,382	..	36	..	..	..	12,325
Tropical eucalypt and paper bark . . . . .	..	..	4,078	..	..	..	2,450	..	6,528
Cypress pine	1,908	..	1,673	..	..	..	777	..	4,358
Plantations(d)	107	109	99	88	40	26	1	13	484
Total forest area	15,524	5,895	11,874	88	3,066	2,778	3,266	13	42,503

(a) For further information on data contained in this table, see the Report of Panel 2 (Forest Resources) of the Forestry and Wood-based Industries Development Conference, 1974. (b) Eucalypt forest types have been grouped into three classes in descending order of productivity. (c) Eucalypt forest (probably of Productivity Class II) in the A.C.T. has not been separated from eucalypt forest in N.S.W. (d) As at 31 March 1972

CLASSIFICATION OF FOREST AREAS BY OWNERSHIP, 30 JUNE 1971

(Source: Forwood Conference 1974)

('000 hectares)

Ownership	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
State(a)	2,884	2,412	3,182	70	1,925	926	312	13	11,725
Other public(b)	(c)6,487	2,755	6,895	..	416	721	2,639	(d)	19,912
National parks(e)	(c)864	128	366	1	34	122	314	(d)	1,830
Private(f)	5,288	600	1,431	17	691	1,009	..	..	9,036
Total	15,524	5,895	11,874	88	3,066	2,778	3,266	13	42,503

(a) Publicly owned land, permanently reserved or dedicated primarily to timber production. (b) Publicly owned land, vacant or occupied under lease, not specifically secured for permanent timber production, but on which control of timber rests with the Crown. (c) Includes the A.C.T. (d) Areas in this category in the A.C.T. have been included in the New South Wales total. (e) Publicly owned land, permanently reserved for purposes other than timber production. (f) Privately owned land, and leasehold land, where the Crown has no control over timber rights.

Plantations

The indigenous forest of Australia does not contain adequate supplies of coniferous timber, and Australia's requirements have had to be met largely by imports. As a result of the planned policy of the forest services and of several private commercial organisations, the area of coniferous plantations, mainly of exotic species, is steadily increasing. It was natural that this aspect of forestry should receive earliest attention in South Australia, as this is the State most poorly endowed with natural forest. South Australia now has a large area of planted conifers, and for some years has been obtaining considerable quantities of timber from these plantations. Production is also increasing in other States, and the thinnings from their plantations are already supplying a significant volume of timber.

The total production of roundwood from Australia's coniferous plantations is now more than 2.6 million cubic metres per annum and is expected to increase substantially during the next decade.

A special article giving a detailed account of the history and development of coniferous plantations and of the characteristics of individual species is included in Year Book No. 59, page 880.

Broadleaved plantations (mainly *Eucalyptus ssp.*) comprise 27,800 hectares, a much smaller area than for the coniferous plantations. Plantations of ash eucalypts (including *E. delegatensis* and *E. regnans*) for pulpwood in Victoria, and brown mallet (*E. astringens*) for tan bark production in Western Australia make up a substantial proportion of the total broadleaved plantation area. The following tables show total area of plantations in Australia classified by species and by ownership.

AREA OF PLANTATIONS CLASSIFIED BY SPECIES, 31 MARCH 1972

(Source: Forwood Conference 1974)

(Hectares)

	N.S.W.(a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coniferous plantations—									
Pinus radiata	83,500	96,200	2,400	79,600	14,900	26,200	..	11 700	314,500
Pinus pinaster . . . . .	..	500	..	5,900	17,700	..	..	..	24,100
Pinus elliptii	(b)11,700	..	51,400	..	..	..	..	..	63,100
Pinus caribaea . . . . .	..	..	5,800	..	..	..	100	..	5,900
Araucaria species	1,200	..	32,600	..	..	..	..	..	33,800
Callitris intratropica . . . . .	..	..	..	..	..	..	1,400	..	1,400
Other coniferous species	4,900	3,400	3,500	800	..	200	..	1,000	13,800
<i>Total</i>	101,300	100,100	95,700	86,300	32,600	26,400	1,500	12,700	456,600
Broadleaved plantations—									
Eucalyptus species	5,100	9,000	(c)3,100	1,400	7,800	..	..	..	26,400
Populus species	1,100	300	..	..	..	..	..	..	1,400
<i>Total</i>	6,200	9,300	3,100	1,400	7,800	..	..	..	27,800
Grand total	107,500	109,400	98,800	87,700	40,400	26,400	1,500	12,700	484,400

(a) Private woodlots of less than 40 hectares are not included. (b) Includes some *Pinus taeda*. (c) Includes approximately 400 hectares of native cabinet wood species.

AREA OF PLANTATIONS CLASSIFIED BY OWNERSHIP, 31 MARCH 1972

(Source: Forwood Conference 1974)

(Hectares)

Ownership(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Coniferous plantations—									
State	85,600	50,100	76,700	68,700	30,100	18,600	12,700	1,500	344,000
Other public	600	3,500	..	1,000	..	200	..	..	5,300
Private	(b)15,100	46,500	19,000	16,600	2,500	7,600	..	..	107,300
<i>Total</i>	101,300	100,100	95,700	86,300	32,600	26,400	12,700	1,500	456,600
Broadleaved plantations—									
State	1,600	4,200	2,200	1,400	7,800	..	..	..	17,200
Other public	500	1,200	..	..	..	..	..	..	1,700
Private	(b)4,100	3,900	900	..	..	..	..	..	8,900
<i>Total</i>	6,200	9,300	3,100	1,400	7,800	..	..	..	27,800
Grand total	107,500	109,400	98,800	87,700	40,400	26,400	12,700	1,500	484,400

(a) For definitions of the terms 'State', 'other public' and 'private', see footnotes (a), (b) and (f) to the table Classification of Forest Areas by Ownership on page 901. (b) Private woodlots of less than 40 hectares are not included.

Australian Government loans to expand softwood plantations

The first steps in the creation of government plantations in Australia were taken in 1870 in South Australia. Planting commenced in 1876 and has continued without interruption ever since. Small plantations were later established in other States, notably Victoria. Planting progressed at a steady rate between the two World Wars. After the Second World War, planting programs were recommenced, but at a rate insufficient to provide Australia's future requirements for softwood.

In February 1965 the Australian Forestry Council recommended that the rate of expansion of softwood timber plantings in Australia should be increased from their existing level of about 16,000 hectares a year to 30,000 hectares a year for the next thirty-five years. The recommendations envisaged a phased increase in the rate of Government plantings by the various State Governments up to a level of some 26,000 hectares per annum together with plantings by the Australian Government in the Territories of 1,000 hectares per annum, and an average of at least 4,000 hectares per annum by private forest owners. The Council considered that such a program would make a major contribution towards meeting Australia's future requirements for softwood products.

In February 1966 the Australian Government endorsed this recommendation and agreed, as a first step towards achieving the proposed annual target of 30,000 hectares, to provide financial assistance to each State, over a five-year period commencing 1 July 1966, to enable them to accelerate their rate of softwood plantings. The assistance, which was provided to the States under section 96 of the Constitution, took the form of long-term loans repayable over twenty-five years with repayments of principal and the payment of interest commencing ten years after the date of each advance.

The *Softwoods Forestry Agreements Act 1967* authorised the Australian Government to enter into agreements with each of the States to provide financial assistance by way of loans during the financial years 1966-67 to 1970-71 inclusive.

In February 1969 the Australian Forestry Council recommended a continuation of Federal financial assistance to the States for softwood timber planting for a further five-year period. The resulting *Softwood Forestry Agreements Act 1972* authorised the Australian Government to provide financial assistance to the States, by way of loans, during the financial years 1971-72 to 1975-76 inclusive. These loan funds are to be provided on the same terms and conditions as for the first program.

Payments under the two Acts to all States have been as follows: 1966-67, \$291,000; 1967-68, \$3,456,000; 1968-69, \$3,872,000; 1969-70, \$4,814,000; 1970-71, \$4,784,000; 1971-72, \$389,338; 1972-73, \$9,459,000; 1973-74 (estimated), \$5,378,000; 1974-75, (estimated) \$5,350,000; 1975-76 (estimated), \$5,750,000. Of the 1972-73 payment of \$9.5 million, \$4.3 million was made available to cover expenditure incurred in 1971-72.

Forest administration and research

Forestry and Timber Bureau. The functions of the Forestry and Timber Bureau are laid down in the *Forestry and Timber Bureau Act 1930-1953* and include forestry research and education, the study of timber supply, and advice to the Australian Government on forestry matters. The administrating department is the Department of Agriculture.

In 1961 the Australian Government expanded its activities in forestry research when the Forest Research Institute was formed as a separate branch of the Forestry and Timber Bureau. The purpose of the Institute is to provide complete coverage in forestry research, ensuring that all problems of primary importance to the practice and development of forestry in Australia are investigated. In developing a program with this objective, the Institute takes account of the research activities and potential of the State forest services and other organisations. The research work carried out by the existing sections of the Forest Research Institute covers a wide range of studies, including the following: forest genetics, controlled environment, forest nutrition, forest botany, tree seeds, forest ecology, forest entomology and pathology, fire protection and watershed management. The Forest Research Institute maintains six regional establishments in the States and Northern Territory. These research stations are run on a co-operative basis with State forest services and private forest companies or other government instrumentalities.

The Forestry and Timber Bureau also maintains a Forest Resources Development Branch concerned with the compilation and analysis of statistics of production, consumption and trade in timber and other forest products. This Branch also carries out studies in forest economics and research into logging methods and machines and is concerned with the application of aerial photography and remote sensing techniques to resource assessments.

Commonwealth Scientific and Industrial Research Organization. The Divisions of Building Research and Chemical Technology carry out a wide range of investigations relating to the properties of wood and the uses of wood and wood products. Research on processing logs and timber, solid and composite wood products, timber engineering, and the applications of wood in building is undertaken by the Division of Building Research. The Division of Chemical Technology was created in February 1974 following a reorganisation of the C.S.I.R.O. research effort in which the previous Division of Applied Chemistry ceased to exist as a separate entity. The research program of the new Division of Chemical Technology is directed towards the recycling of resources, utilisation of renewable resources, and the protection and conservation of natural resources. Problems of the pulp and paper industry, and bushfire research are receiving particular attention.

Most of the present forest products activities of both Divisions are conducted at the C.S.I.R.O. Forest Products Laboratory in South Melbourne. The Divisions provide assistance to individuals and industry, administer courses of instruction on timber properties and usage, and maintain co-operative projects with overseas authorities operating in the same fields.

Forestry in the Territories. The management of forests in the Australian Capital Territory is the responsibility of the Forests Branch of the Department of the Capital Territory. Forests in the Northern Territory are under the control of the Forestry Section of the Department of the Northern Territory.

Forestry activities of the States. Forestry on State-owned lands in the various States is the responsibility of the respective State Governments, but they do not exercise any control over forestry activities on private property. The powers and functions of State forest authorities are laid down

under forest Acts and Regulations. In each State there is a department or commission to control and manage State forests. Its functions include the introduction of proper measures for the control and management of forest land; the protection of forest land; the conversion, marketing and economic utilisation of forest products; the securing of an adequate and permanent reservation of State forests; and the establishment and maintenance of coniferous forests to remedy the existing deficiency of conifers in Australia. All State forest services are actively engaged on research programs. Annual reports are issued by each State forest authority.

In addition to developing permanent forest reserves in each State, foresters are surveying all forested Crown lands with a view to obtaining dedications of new State forests to add to the permanent forest estate or to release for other uses areas unsuitable for forestry. In the States publicly owned land permanently reserved or dedicated primarily for timber production amounts to 11.4 million hectares, the timber on a further 17.3 million hectares not specifically reserved for permanent timber production being under the control of the Crown.

Private forestry. Privately owned lands contribute considerably to the total production from Australian forests. The most important areas of managed native forest in private ownership are the forests owned by pulp and paper companies. Schemes of financial assistance to individual land owners—designed primarily to encourage establishment and management of coniferous plantations—have been introduced by the Governments of New South Wales and Victoria.

The area of privately owned coniferous plantations is rapidly increasing, and here again the pulp and paper companies are very active. In step with the increase in afforestation programs, the number of professional foresters employed in private forestry enterprise is increasing, while several are engaged on research.

The area of plantations established by private companies and individuals is included in the table on page 902.

Forestry education

The Australian National University's Department of Forestry in Canberra and the School of Forestry of the University of Melbourne offer undergraduate courses leading to a Bachelor of Science degree in forestry. Universities in all States have facilities for post-graduate studies for forestry graduates. Foresters for the Forests Commission of Victoria are trained at a departmental Forestry School at Creswick, Victoria. States other than Victoria offer traineeships to students selected for university training in forestry. These traineeships support the students and meet their expenses throughout the four year university course. Successful graduates are appointed as forestry officers in the State Forest Services. The Australian Government also offers forestry scholarships to cover the cost of university training in forestry for those selected.

The Australian Forestry Council

The Australian Forestry Council comprises the Ministers responsible for forestry in the six State Governments and the Australian Government.

The Council is intended to provide the means for the mutual exchange between the State and Australian Governments of information and views on forestry. It co-ordinates research into problems affecting the establishment, development, management, and fire protection of all forests, and the utilisation of forest products. It assists in co-ordinating the work of State and Australian Governments and also private enterprise in the development of Australian forestry.

The Council is supported by a Standing Committee, consisting of the Director-General of the Forestry and Timber Bureau, the heads of each of the six State Forest Services, the Chief of the Division of Building Research, C.S.I.R.O., and the secretaries of the Australian Government Departments responsible for forestry.

Fire protection

The provision of adequate fire protection is one of the main problems facing forest and rural authorities. Government and private forestry organisations are responsible for the protection of about 19 million hectares of forest land, of which a relatively accessible area of 9 million hectares is given a high degree of protection, about 7 million hectares in the more inaccessible areas receive a lesser degree of protection, and about 3 million hectares are at present not protected. Other extensive forest areas consisting mainly of vacant Crown land, but including land under private ownership of leasehold, are either not protected or are given some degree of fire protection by rural fire-fighting organisations or Government-financed fire protection associations.

During the 1972-73 fire season a total of 1,816 fires were recorded over the area of 16 million hectares of forest land afforded either intensive or extensive protection by forest authorities. The area burnt by these fires totalled 348,000 hectares or 2.2 per cent of the area protected.

The number of fires and the area of native forest burnt during the last ten years is shown in the following table.

**NUMBER OF FIRES AND AREA BURNT
IN PROTECTED FORESTS(a)**

(Source: Forestry and Timber Bureau)

Year	Number of fires	Forest area burnt	Percentage of forest area burnt
		'000 hectares	
1963-64	1,494	222	1.5
1964-65	2,307	658	4.1
1965-66	1,865	188	1.2
1966-67	1,422	157	1.0
1967-68	1,754	305	1.9
1968-69	2,165	763	4.7
1969-70	905	53	0.3
1970-71	1,018	71	0.4
1971-72	1,195	185	1.1
1972-73	1,816	348	2.2

(a) The area receiving protection has been taken as the 16 million hectares for which State forest services provide protection.

Very intensive fire protection is afforded to the coniferous plantation area of Australia. This area is increasing rapidly and the annual planting program is now between 25,000 and 30,000 hectares. During the 1972-73 fire season a total of 326 hectares was burnt, representing 0.07 per cent of the area of 451,000 hectares for which fire statistics are available.

The area of coniferous plantations burnt during the past ten years is shown in the following table.

**CONIFEROUS PLANTATIONS AREA BURNT AND
TOTAL AREA**

(Source: Forestry and Timber Bureau)

Year	Number of fires	Area burnt	Area of coniferous plantations(a)	Percentage of coniferous area burnt
		hectares	'000 hectares	
1963-64	} n.a.	169	208	0.08
1964-65		1,267	225	0.56
1965-66		615	247	0.25
1966-67		187	267	0.07
1967-68		117	295	0.04
1968-69	39	909	316	0.29
1969-70	51	60	354	0.02
1970-71	40	568	402	0.14
1971-72	113	127	429	0.03
1972-73	138	326	451	0.07

(a) This area does not include certain privately owned coniferous plantations for which fire statistics are not available.

Detailed information on fire protection is given in Year Book No. 55, 1969, pages 966-7.

Employment in forestry

In the following table details are shown of the number of persons employed by State forestry departments, the Department of the Capital Territory, the Department of the Northern Territory, the Forestry and Timber Bureau in the relevant States and Territories, and the private sector of the forestry industry at 30 June 1973. The table excludes staff of forestry training establishments.

PERSONS EMPLOYED IN FORESTRY(a), 30 JUNE 1973

Occupational group	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Professional staff—									
Foresters	226	265	121	61	59	60	15	45	852
Others	78	30	93	33	17	24	..	10	285
Field and other technical staff	287	329	120	53	269	251	37	43	1,389
Clerical staff	298	317	250	132	67	145	19	63	1,291
Labour(b)	1,119	1,422	1,858	319	548	709	86	113	6,174
Extraction(c)	3,319	1,211	2,500	191	805	3,208	19	37	11,290
Total	5,327	3,574	4,942	789	1,765	4,397	176	311	21,281

(a) The Forestry and Timber Bureau has provided figures for employment within its own organisation. (b) Staff engaged in silvicultural forest works, etc. (c) Staff engaged in felling, carting, etc. Includes direct employees only.

Log sawmilling and veneer and plywood, etc., manufacturing activities

Selected details of the operations of establishments engaged in log sawmilling and the manufacture of plywood, etc., are set out in the tables below. These details were compiled from the annual census of Manufacturing for 1972-73. For further details of the Manufacturing Census see Chapter 21, Manufacturing Industry.

MANUFACTURING ESTABLISHMENTS—LOG SAWMILLING (A.S.I.C. CLASS 2511)(a) SUMMARY OF OPERATIONS, 1972-73

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Establishments in operation at 30 June	No. 419	237	301	39	97	159	2	4	1,258
Employment(b)	5,114	3,190	3,219	591	2,053	1,501	(c)	(c)	15,844
Turnover	\$'000 72,725	45,742	38,278	12,660	23,617	20,349	(c)	(c)	215,303
Value added	42,005	27,599	23,279	3,784	16,060	10,429	(c)	(c)	124,013
Fixed capital expenditure (outlay on fixed tangible assets less disposals)	2,697	4,045	1,994	218	1,257	346	(c)	(c)	11,253

(a) Australian Standard Industrial Classification. See page 730. (b) Average over whole year; includes working proprietors. (c) Not available for publication.

MANUFACTURING ESTABLISHMENTS—PLYWOOD, VENEER AND MANUFACTURED BOARDS OF WOOD (A.S.I.C. CLASS 2513)(a): SUMMARY OF OPERATIONS, 1972-73

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Establishments in operation at 30 June	No. 32	12	30	8	3	3	..	..	88
Employment(b)	2,631	830	2,319	724	(c)	(c)	..	..	7,313
Turnover	\$'000 44,826	17,662	37,168	14,492	(c)	(c)	..	..	132,166
Value added	21,294	7,872	18,389	7,080	(c)	(c)	..	..	62,495
Fixed capital expenditure (outlay on fixed tangible assets less disposals)	1,171	1,581	-257	3,737	(c)	(c)	..	..	6,596

(a) Australian Standard Industrial Classification. See page 730. (b) Average over whole year; includes working proprietors. (c) Not available for publication.

Forest production

FOREST PRODUCTION(a), 1972-73

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Production of logs for sawing, peeling, slicing or pulping—										
Broadleaved—										
Eucalypt and related species	'000 m ³	1,955	1,702	494	6	1,062	3,160	1	..	8,381
Rain forest species	..	137	..	258	..	..	..	..	..	396
Coniferous—										
Indigenous forest conifers—										
Cypress	..	154	..	195	..	..	..	1	..	350
Other	71	..	..	8	..	..	80
Plantation grown conifers										
Total	..	230	689	172	919	101	56	..	104	2,272
Total	..	2,478	2,391	1,191	925	1,163	3,224	2	104	11,478
Gross value of forest products(b)—										
Logs(c)										
Hewn and other timber (incl. firewood)(d)	\$'000	31,971	31,583	16,698	8,048	7,968	27,897	25	932	125,122
Other forest products(f)	..	11,254	5,119	5,208	2,514	(e)7,028	3,025	10	56	(e)34,212
Total	..	306	90	809	121	(g)	..	..	4	(g)1,331
Total	..	43,531	36,792	22,715	10,683	14,996	30,922	35	992	160,665
Local value of forest products(k)—										
Total	..	43,491	36,445	14,458	10,656	13,574	25,360	35	992	145,011

(a) Excludes some production from private land thought to be relatively small, details of which are not available. (b) Gross production valued at principal markets. See the chapter Miscellaneous for a more detailed reference to the value of production of forestry, as well as a brief explanation of the terms used. (c) See footnote (c) to the table Forest Production: Australia, below. (d) Includes also sleepers, transoms, girders, bridge timbers, mining timber, poles, piles, etc. (e) Includes value of 'Other forest products' in Western Australia, which is not available for publication. (f) Includes charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin, etc. (g) Value of 'Other forest products' in Western Australia has been included with 'Hewn and other timber'.

FOREST PRODUCTION(a): AUSTRALIA

	1968-69	1969-70	1970-71	1971-72	1972-73	
Production of logs for sawing, peeling, slicing or pulping—						
Broadleaved—						
Eucalypt and related species	'000 m ³	7,096	7,073	7,088	7,606	8,381
Rain forest species	..	376	378	363	370	396
Coniferous—						
Indigenous forest conifers—						
Cypress	..	322	344	330	333	350
Other	..	105	92	66	71	80
Plantation grown conifers						
Total	..	1,812	1,963	2,058	2,057	2,272
Total	..	9,710	9,849	9,905	10,436	11,478
Gross value of forest products(b)—						
Logs(c)						
Hewn and other timber (including firewood)(d)	\$'000	90,166	93,964	101,645	112,086	125,122
Other forest products(h)	..	(ef)28,070	(ef)29,623	(ef)33,624	(e)33,581	(g)34,212
Total	..	(i)774	(i)843	(i)1,079	1,522	(j)1,331
Total	..	(k)119,543	(k)125,026	(k)137,168	(k)147,852	160,665
Local value of forest products(l)—						
Total	..	110,170	115,155	126,173	135,484	145,011

(a) Excludes some production from private land, thought to be relatively small, details of which are not available. (b) See footnote (b) to the table Forest Production, 1972-73, above. (c) Included in this category are amounts attributable to sawmillers who carry out their own logging activities as a secondary part of their operations. As such, the values are attributable to the sawmilling industry which is part of manufacturing industry. However, the amount has been included in this table so that the overall value of forest products might be shown. The amount in question is estimated to be \$26.1 million for 1968-69, or 28.9 per cent of the Australian total of \$90.3 million; and \$29.5 million in 1969-70, or 30.5 per cent of the total of \$96.6 million. An estimate of the amount for subsequent years is not available. (d) Includes also sleepers, transoms, girders, bridge timbers, mining timber, poles, piles, etc. (e) Excludes value of timber used for tannin extract in Western Australia, which is not available for publication. (f) Includes value of 'Other forest products' for Tasmania. (g) Includes value of 'Other forest products' in Western Australia, which is not available for publication. (h) Includes charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin, etc. Excludes value of sandalwood and substitutes in Western Australia, which is not available for publication. (i) Incomplete; figure for Tasmania included in value of 'Hewn and other timber'. (j) Value of 'Other forest products' in Western Australia has been included with 'Hewn and other timber'. (k) Includes value of timber used for tanning extract and sandalwood and substitutes in Western Australia. (l) Gross production valued at place of production. See footnote (b) to the table above.

Timber and timber products

Mill production of timber

Particulars of logs treated and the production of sawn, peeled and sliced timber by sawmills and other woodworking establishments are shown in the following table. The figures prior to 1968-69 have been compiled from annual factory collections, which cover virtually all sawmills. The only omissions are some small portable mills operated by itinerants, e.g. sleeper cutters. Figures for 1968-69 and later years are not strictly comparable with previous years because of changes in the census units and scope.

OUTPUT OF AUSTRALIAN-GROWN TIMBER: ALL MILLS(a), 1972-73 (^{'000} cubic metres gross hoppus)

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>A.C.T.</i>	<i>Aust.(a)</i>
Sawn, peeled or sliced timber produced from logs—								
Broadleaved	845	651	285	10(a)	378	392	..	2,561
Coniferous	175	115	168	326(a)	22	8	35	848
Total timber produced	1,019	766	453	336(a)	400	400	35	3,409

(a) Includes Northern Territory.

AUSTRALIAN-GROWN LOGS TREATED AND TIMBER PRODUCED, ALL MILLS AUSTRALIA(a) (^{'000} cubic metres gross hoppus)

	1967-68	1968-69	1969-70	1971-72	1972-73
Logs treated—					
Broadleaved(b)	5,527	5,335	5,260	5,125	5,375
Coniferous(b)	1,258	1,288	1,304	1,457	1,565
Total logs treated(b)	6,785	6,623	6,564	6,582	6,940
Sawn, peeled or sliced timber produced from logs above—					
Broadleaved	2,750	2,630	2,672	2,584	2,561
Coniferous	726	769	714	782	848
Total timber produced	3,476	3,399	3,386	3,367	3,409

(a) Excludes Australian Capital Territory and Northern Territory for years prior to 1968-69. (b) Gross hoppus basis: not necessarily comparable with details for years prior to 1965-66, which are generally on a true volume basis. Gross hoppus measure is approximately 78.5 per cent of the true volume.

In addition to the mill production of timber shown in the preceding tables, a large quantity of hewn and round timber, e.g. sleepers, piles, poles, fencing timber, timber used in mining and fuel, is obtained directly from forest and other areas. Information in respect of the value of this output may be found in the tables dealing with forest production on page 907.

Veneers, plywood, etc.

Cutting of timber for the manufacture of veneers, plywood, etc., has been carried out in most States for a number of years. In recent years this has been considerably extended, since plywood manufacture has allowed the use of some species unsuitable for sawing. Special attention has been paid to ensure that logs suitable for peeling are diverted to ply factories.

PLYWOOD PRODUCED: AUSTRALIA (^{'000} square metres: $\frac{3}{8}$ " basis)

<i>State</i>	1967-68	1968-69	1969-70	1971-72	1972-73
New South Wales	6,030	6,604	7,362	6,736	} 17,141
Queensland	(b)	7,934	9,328	8,632	
Other States	(a)(b)	7,102	7,438	6,500	
Australia	(a)21,369	21,640	24,128	21,868	24,769

(a) Excludes Australian Capital Territory and Northern Territory. (b) Not available for publication.

Of the total plywood produced in 1972-73, 13,225,000 square metres ($\frac{3}{8}$ " basis) were classed as 'Commercial', 9,370,000 as 'Waterproof', 321,000 as 'Case', and 1,852,000 as 'Sliced fancy'.

During 1972-73, 73.0 million square metres ($\frac{1}{8}$ " basis) of veneers were produced by the rotary process for the manufacture of plywood. In addition, 8.2 million square metres of sliced veneers were produced.

Manufactured boards

Particle board, resin bonded, amounted to 21,355,000 square metres during 1972-73.

Woodchips

Woodchips are manufactured from sawmill waste and other timber otherwise of little or no commercial value. Their primary use is the production of wood pulp. The recently established woodchip industry in Australia at present produces only for export to Japan, although there are long-term plans for the Australian production and export of wood pulp made from woodchips.

There are four companies, three in Tasmania and one in New South Wales, which operate chipping mills and which have entered into agreements to export woodchips to Japanese pulp mills. The contract covering the export of woodchips from New South Wales, spanning a 20 year period, allows for an annual export of 610,000 tonnes of chips; the total quantity under contract being 3.4 million tonnes. Exports from Tasmania are covered by four contracts, ranging in length from 5½ to 15 years, and involving a total quantity of 22.2 million tonnes. The Tasmanian contracts involve annual shipments ranging from 310,000 to 710,000 tonnes. It is expected that by 1988, these four projects will export a total of 30 million tonnes of woodchips to Japan valued at about \$460 million. All four companies had commenced exports by 1972. Supplies of timber for chipping will come from State and privately owned forest lands, and from sawmill residues.

In addition to the above projects, a 15 year contract has been concluded between a Western Australian company and Japanese paper makers for the supply of up to 760,000 tonnes of woodchips per annum, valued in total at about \$200 million, from Western Australia.

Wood pulp and paper

Wood pulp. During 1972-73 wood pulp production was 532,492 tonnes of chemical, mechanical and other pulp. During the previous year production was 506,333 tonnes.

Paper and paper board. Paper and paper board are manufactured in all States but the greater part of the industry is in New South Wales, Victoria and Tasmania. A wide variety of paper and paper board is produced in Australian mills. The table below gives details of the production of some of the principal items.

PRODUCTION OF PAPER PRODUCTS: AUSTRALIA

(tonnes)

Type of paper	1969-70	1970-71	1971-72	1972-73
Newsprint	173,314	178,683	181,477	199,054
Blotting	496	500	443	(a)
Duplicating	9,718	12,395	14,594	(a)
Printing and writing	125,226	128,842	126,367	131,124
Wrapping—				
Kraft	274,048	272,223	283,949	299,891
Other				
Paper felts	1,500	1,569	1,276	989
Paper boards	376,626	385,227	382,033	411,246

(a) Information not available for publication.

Imports

IMPORTS OF FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS
AUSTRALIA

	Quantity			Value (\$'000 f.o.b.)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Crude wood, timber and cork—						
Wood waste and charcoal				16	23	13
Wood in the rough or roughly squared	'000 m ³	109	97	103	3,165	2,806
Wood shaped or simply worked—						
Railway or tramway sleepers	"	13	13	..	860	724
Timber, sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm—						
Conifer—						
Douglas fir	"	423	423	467	19,970	20,462
Hemlock and balsam	"	60	72	103	2,040	2,636
Radiata pine	"	72	51	53	2,423	1,858
Redwood	"	6	4	10	510	328
Western red cedar	"	67	71	83	4,963	4,958
Other	"	33	33	34	(a)2,545	2,580
Total conifer	"	661	654	750	(a)32,451	32,822
Non-conifer(b)	"	244	219	460	13,964	12,154
Timber (including blocks, strips, etc.), planed, tongued, grooved, rebated, etc., but not further manufactured—						
Conifer	'000 m ³	13	12	24	1,050	1,087
Non-conifer	"	10	19	55	862	1,678
Cork, raw and waste . . . . .	"	..	..	..	426	503
Selected items of forest origin, other than crude wood, timber and cork—						
Tanning extracts of vegetable origin	tonnes	2,541	2,558	2,262	482	514
Wood and cork manufactures (except furniture)—						
Veneers, plywoods, 'improved' or reconstituted wood and other wood, worked, n.e.s.(c)	'000 m ³	19,146	20,523	n.a.	10,331	10,246
Wood manufactures n.e.s. (house- hold utensils, domestic utensils, building carpentry, etc.) . . . . .	"	..	..	..	5,274	5,852
Cork manufactures . . . . .	"	..	..	..	1,666	1,721

(a) Includes a value of \$38,000 for which no quantity has been included. (b) Total values for this item for 1970-71, 1971-72 and 1972-73 include values of \$94,000, \$184,000, and \$184,000 respectively, for which no quantities have been included. (c) Total values for this item for 1970-71 and 1971-72 include values of \$795,000 and \$1,040,000 respectively, for which no quantities have been included.

Exports

EXPORTS OF AUSTRALIAN FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS(a)
AUSTRALIA

	Quantity			Value (\$'000 f.o.b.)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Crude wood, timber and cork—						
Wood waste and charcoal (including shell and nut charcoal)	'000 m ³	..	..	..	13	3
Pulpwood	"	5	..	..	62	..
Wood in the rough or roughly squared	"	10	7	7	550	358
Wood, shaped or simply worked—						
Railway sleepers	"	21	38	30	1,541	2,683
Timber, sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm—						
Conifer	"	1	1	2	136	120
Non-conifer—Jarrah	"	5	4	5	363	503
Other	"	15	18	26	1,258	1,510
Timber (including blocks, strips and friezes for parquet or wood block flooring, not assembled), planed, tongued, etc.—						
Conifer	"	2	2	7	211	205
Non-conifer	"	348	2,187	10	47	198
Cork, raw and waste	tonnes	..	2	2	..	2
Selected items of forest origin other than crude wood, timber and cork—						
Natural gums, resins, gum-resins, balsam and lacs	"	367	423	611	51	68
Eucalyptus oil	"	111	108	118	153	165
Wood and cork manufactures (except furniture)—						
Veneers, plywood boards, etc.—						
Wood sawn lengthwise, sliced or peeled, not further prepared, veneer sheets and sheets for plywood, of a thickness not exceeding 5 mm	'000 m ³	665	413	728	303	244
Plywood, blockboard, laminated wood products, inlaid wood and marquetry, cellular wood panels—						
Plywood	"	203	415	645	533	487
Other	"	144	159	91	107	145
Reconstituted wood, in panels, sheets or strips, and improved wood	"	219	168	347	351	(b)308
Wooden beadings and mouldings . . . . .	"	..	..	..	103	59
Wood simply shaped or worked, n.e.s. . . . .	"	..	..	..	12	18
Wood manufacturers n.e.s., and plants and parts of plants used in dyeing and tanning . . . . .	"	..	..	..	1,122	1,117
Cork manufactures, n.e.s. . . . .	"	..	..	..	159	265
						931
						128

(a) Excludes re-exports. (b) Includes a value of \$3,000 for which no quantity has been included. (c) Includes a value of \$17,000 for which no quantity has been included. (d) Includes woodchips, which were not available for publication prior to 1972-73.

CHAPTER 25

FISHERIES

Further information on subjects dealt with in this chapter is contained in the annual statistical bulletins *Fisheries* (10.8 and 10.9), particularly as regards types of fish, etc. caught.

Fisheries resources and their commercial exploitation

Fish

Approximately 2,000 species of marine and freshwater fish occur in and around Australia, about forty of which support substantial commercial fisheries. Most fishing is confined to waters over the continental shelf on the populous eastern and south-eastern seaboard, including Tasmania and South Australia, and off the south-western corner of the continent. As in other countries, fisheries in Australia may be divided into estuarine fisheries, located in the tidal waters of rivers and coastal lakes, beaches and bays; pelagic fisheries, which exploit species inhabiting the surface layers of the open ocean; and demersal fisheries, which fish the bottom layers of the sea. Estuarine fisheries produce considerable quantities of mullet (mainly *Mugil cephalus*), bream (*Acanthopagrus spp.*) and, in northern Australia, the valuable giant perch (*Lates calcarifer*). Important freshwater fisheries in New South Wales, Victoria and South Australia include those for Murray cod (*Maccullochella macquariensis*), golden perch (*Plectroplites ambiguus*) and eels (*Anguilla australis*). Rainbow trout are farmed in Tasmania. Important pelagic fisheries include those for Australian 'salmon' (*Arripis trutta*), southern bluefin tuna (*Thunnus maccoyii*), snoek (*Leionura atun*), mackerel (*Cybium spp.*) and clupeoids (*Sardinops neopilchardus* and *Engraulis australis*). Demersal fisheries include those for snapper (*Chrysophrys auratus*), whiting (*Sillaginidae*) and from tropical waters the so called 'cods' (*Epinephelus*, etc.). Trawl fisheries off New South Wales and Victoria yield species such as flathead (*Neoplatycephalus* and *Trudis spp.*), morwong (*Nemadactylus spp.*) and John Dory (*Zeus faber*). The previously valuable fishery for edible school and gummy shark (*Galeorhinus australis* and *Mustelus antarcticus*) in south-eastern Australia has declined significantly in the year 1972-73 because of the discovery of a high mercury content in large school shark. A fishery for clupeoids in the Bass Strait which supplies the raw material for a fish meal plant at Lakes Entrance, Victoria, is the only established 'industrial fishery' in Australia, but several other exploratory purse seine ventures aimed at production of clupeoids, including a fish meal plant at Triabunna, have been established in south-eastern Australia recently.

Crustaceans

The western and southern rock lobsters (*Panulirus longipes cygnus* and *Jasus novaehollandiae*) which are taken on rocky reefs around the southern half of Australia, provide the most valuable fishery in Australia. Prawns (*Penaeus* and *Metapenaeus spp.*) are taken in estuarine, coastal and offshore waters of all States except Tasmania. This fishery has grown rapidly in recent years, especially in northern Australia. Bay lobsters (*Thenus spp.*) are taken incidentally to prawn trawling operations. Crabs (*Scylla* and *Portunus spp.*) are taken mainly in Queensland, New South Wales and Western Australia.

Molluscs (edible)

Naturally occurring oysters are harvested in all States; and in New South Wales and Queensland the Sydney rock oyster (*Crassostrea commercialis*) is cultured commercially. The introduction of the Pacific oyster (*Crassostrea gigas*) in Tasmania and, recently, South Australia provides a limited supply in those States. Following a serious decline in catches in the scallop (*Pecten meridionalis*) fishery based on stocks in Port Phillip Bay, Victoria, new offshore beds were located in southern New South Wales, eastern Victoria and south-western Western Australia. However, substantial fluctuations in abundance has resulted in erratic variation in production from year to year. A fishery based on the saucer scallop (*Amusium balloti*) developed, then declined, in another area of Western Australia, and there is a similar though more stable fishery in Queensland. An important abalone fishery has been developed

since 1964 in south-east Australia with Tasmania, Victoria and South Australia providing the bulk of the catch. Mussels (*Mytilus planulatus*) are harvested in Victoria, and a fishery for squid has developed in the Derwent River estuary at Hobart in 1972-73. Other small quantities of cephalopods, mainly squid, are produced in many localities.

Pearl-shell and trochus-shell

The shell of the Australian species of pearl oyster (*Pinctada maxima*) is taken from various localities in the tropical waters of Australia from Broome in Western Australia to Cairns in Queensland for the manufacture of buttons, knife handles, etc. Live pearl-shell is used for pearl culture, *Pinctada maxima* being capable of producing pearls which are the largest in the world and which command top market prices. Trochus-shell is found mainly on coral reefs off the Queensland coast, although small quantities occur in Western Australia.

Whales

The Australian whaling industry formerly exploited the baleen (humpback) whales during their winter migrations along the east and west coasts of Australia. However, owing to the total prohibition placed on their capture by the International Whaling Commission in 1963, Australian whaling is now confined to the sperm whale (*Physeter catodon*) which has been taken in the southern waters of Western Australia since 1955. Processing operations were carried out by several shore stations, but now only one station at Albany, Western Australia, is still operating.

Marine flora

The only substantial commercial collection of seaweed in Australia was undertaken at Triabunna, Tasmania, where a factory processing seaweed (*Macrocystis pyrifera*) for its alginate content, has recently closed, possibly as a temporary measure.

General

A map showing Australia's principal ports and generalised localities of the fishery resources under exploitation appears on plate 54, page 916. Detailed information on the history of the development of fisheries industries in Australia is given in Year Book No. 55, pages 976-7.

Fisheries administration and research

The Constitution of the Commonwealth (Section 51 (x)) assigns to the Australian Government power to legislate for fisheries in Australian waters beyond territorial limits, the residual power in respect of waters within territorial limits (including inland waters) resting with the States. The Australian Government has made similar arrangements for each of its Territories. Each State and Territory has legislation regulating fisheries in waters within its jurisdiction. Persons taking fish for sale, and their boats, are required to be licensed, and provision is made for management of the fisheries.

The Australian Government laws regulating the fisheries are the *Fisheries Act* 1952-1974, the *Continental Shelf (Living Natural Resources) Act* 1968-1973 and the *Whaling Act* 1960-1966. Each of these applies in accordance with the Australian Government's fishery power under the Constitution.

Fisheries Act

This Act requires persons engaging in fishing and boats used for fishing to be licensed and their equipment for taking fish to be registered if the purpose of the fishing is commercial. It also provides for management and conservation of the fisheries. The Act applies to Australian residents and their boats in waters proclaimed under the Act and, since 1968, to foreign boats and their crews in the zone of waters extending 12 miles from the baselines of the territorial sea but excluding waters within territorial limits, where State law applies.

Continental Shelf (Living Natural Resources) Act

This Act implements in Australian law the sovereign rights, conferred on Australia in respect of the organisms belonging to sedentary species (that is, organisms which, at the harvestable stage, either are immobile on or under the seabed, or are unable to move except in constant physical contact with the seabed or the subsoil) on the continental shelf. The continental shelf comprises the seabed and subsoil of the submarine areas adjacent to the coast but outside the territorial sea to a depth of 200 metres, or beyond that depth where the depth of the superjacent waters admits of the exploitation of the natural resources of the area, by the Convention on the Continental Shelf, Geneva, 1958. The Act requires the licensing of persons searching for and taking sedentary organisms, of boats used to

search for and take sedentary organisms, and of persons employing divers, trial divers and divers' tenders in taking sedentary organisms, if such activities are carried out in controlled areas of the continental shelf of Australia or the Territories for a commercial purpose. Provision is made for proclamation of sedentary organisms to which the Act applies, for the establishment of controlled areas of continental shelf in respect of specified sedentary organisms, and for the management and conservation of sedentary organisms in controlled areas (the last of these applying to all persons whether the purpose of the taking of the sedentary organism was commercial or not). The Act applies to all persons including foreigners, and to all boats including foreign boats.

Whaling Act

This Act implements in Australian law the obligations imposed on Australia by virtue of our adherence to the International Convention for the Regulation of Whaling, Washington, 1946. The Act requires the licensing of factories engaged in treating whales and of ships (and aircraft) used for taking whales. It also provides for the management and conservation of whale stocks.

Administration

Australian fisheries are administered by the authority having jurisdiction over the waters concerned. In inland waters and in waters within territorial limits, administration is the responsibility of the State or Territory fisheries authority. In proclaimed waters, and on the continental shelf beyond territorial limits, administration is the responsibility of the Australian Government which, by agreement, has delegated to State fisheries authorities the necessary authorities for day-to-day administration of the Acts.

The administration of the fisheries is directed to a number of objectives, of which the two most important are conservation of the living resources in order to ensure their ability to sustain a maximum yield consistent with economy in their exploitation and the orderly conduct of the fishing industry. Fishery resources are common property and apart from fisheries such as those for rock lobster and abalone, where the numbers of boats and the quantities of fishing gear are controlled, the only other restrictions on the entry of boats into the Australian fishing industry are those relating to foreigners, and to processing and carrying boats in the northern prawn fishery. Management measures have been introduced in several fisheries to provide controls such as minimum sizes, closed areas, closed seasons and regulation of the types of fishing gear that may be used.

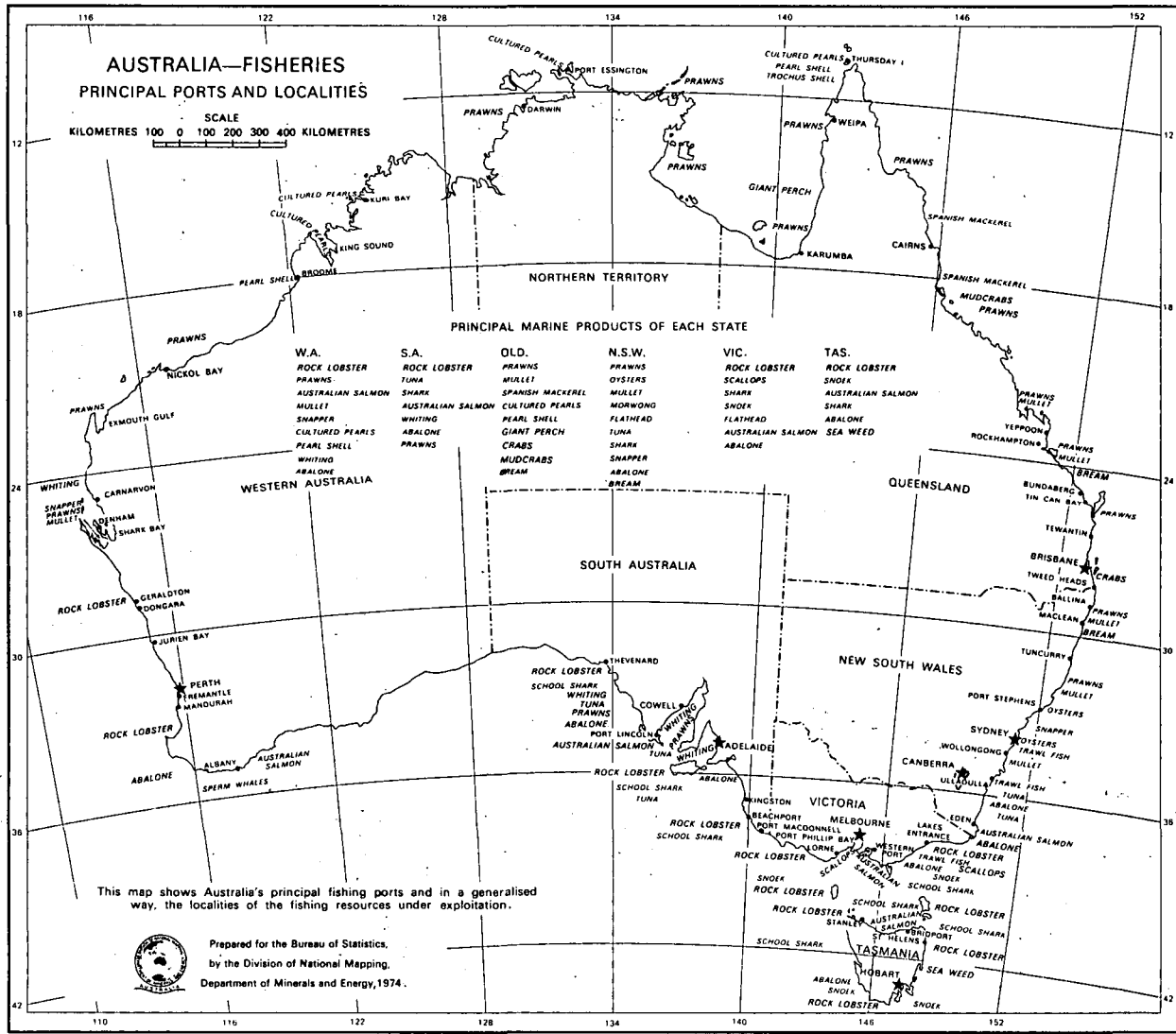
The Fisheries Development Trust Account (established under the *Fishing Industry Act 1956*) and the Fishing Industry Research Trust Account (established under the *Fishing Industry Research Act 1969*) are available to support financially, projects of kinds consistent with the purposes of those Acts for the development and management of the fisheries and fishing industry. The former is supported by the proceeds of the sale of the assets of the Australian Whaling Commission. The latter is a matching fund into which is paid each year an appropriation from Australian Government Revenue equal to amounts collected from the fishing industry by the State Fisheries Authorities and expended by the States for the same purposes.

Research

The main aim of fisheries research in Australia is to provide a background of biological, technical and economic information which will provide guidance for the efficient and rational utilisation of fisheries resources. To this end much of the research already undertaken has been directed at formulating recommendations for management of various fisheries. Research work is also carried out which is expected to lead to the development of new fisheries, the expansion of under-exploited fisheries, greater economy in operations and the use of more efficient equipment and methods.

Organisations in Australia at present engaged in research into fisheries matters are:

- (i) C.S.I.R.O. Division of Fisheries and Oceanography, with its headquarters and main laboratory at Cronulla, N.S.W. (fisheries science and oceanography);
- (ii) C.S.I.R.O. Division of Food Research; main laboratories located at Ryde, N.S.W. (handling, storage, processing and transportation of fish);
- (iii) State fisheries departments (fisheries laboratories have been established in Perth, Hobart, Melbourne, Sydney and Brisbane; research vessels are operated by New South Wales, Victoria, Western Australia and Tasmania; the Department of the Northern Territory conducts a Prawn Research Unit in Darwin);
- (iv) Fisheries Division, Department of Agriculture, Canberra (economic and management research, gear technology, extension and education service); and
- (v) private fishing companies (surveys of fisheries resources, research into handling and processing).



Collection and presentation of fisheries statistics

Source and basis of statistics

Statistics presented in this chapter have been collected by a number of authorities. The various State fisheries authorities have supplied, through the Deputy Commonwealth Statisticians in the States, the details of employment, boats, equipment, and production of the general fisheries. The Fisheries division of the Department of Agriculture has supplied particulars of the whaling industry and pearl-shell fishery. Statistics of the processing of general fisheries products and of overseas trade in the products of fishing and whaling have been compiled in the Australian Bureau of Statistics.

The statistics refer, in general, to financial years. However, statistics of pearl and trochus shell fishing, pearl culture operations and whaling refer to the season ended in the calendar year shown. For convenience of presentation, statistics of production of pearl and trochus shell have been assigned to financial years in the tables which follow. All overseas trade information refers to financial years.

In the preparation of Australian fisheries production statistics the quantities of individual products are generally in terms of the form in which they are taken from the water. For example, the statistics of fish production published in this chapter are in terms of 'estimated live weights' which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on an 'estimated live weight' basis and molluscs (edible) on a 'gross (in-shell) weight' basis. The figures of pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

Boats and equipment used in fisheries

Fish, crustaceans and molluscs (edible)

The boats used for the estuarine fisheries are mostly small vessels, propelled by diesel or petrol engines of low power. The offshore vessels range up to 40 metres in length and are almost invariably powered by diesel engines. Most of them have either insulated holds and carry ice, or are equipped with dry or brine refrigeration. Some rock lobster vessels are fitted with wells in which the catch is kept alive. About 25 per cent of the vessels registered in Australia for commercial fishing are over 10 metres in length. Recently, a number of well equipped, double rigged, prawn trawlers of 20 metres to 25 metres in length with large refrigeration capacity have been built for the rapidly developing northern prawn fisheries.

The following are the types of equipment most commonly used in the main fisheries: *mullet*, beach seine, gill net; *shark* (edible), long-lines, gill net; *Australian Salmon*, beach seine; *snoek*, trolling lines; *flathead*, Danish seine, otter trawl; *snapper*, long-lines, traps, gill net, hand-line; *morwong*, Danish seine, otter trawl, traps; *whiting*, handlines, Danish seine, beach seine, gill net; *garfish*, beach seine; *mackerel*, trolling lines; *tuna*, pole and live-bait, trolling lines (lampara nets and purse seines are used for taking live bait for tuna); *prawns*, otter trawl, beam trawl, beach seine net; *rock lobster*, pots, traps; *scallops*, dredge, otter trawl; *abalone*, diving using hookah gear; and *pilchards*, *anchovies*, *jack mackerel* and *striped tuna*, purse seine.

Pearls, pearl-shell and trochus-shell

Ketch-rigged luggers about 15 metres long which carry crews of eight to fourteen members are used for pearl-shell fishing in northern Australia.

Whaling

The whaling industry is highly mechanised. Standard equipment includes aircraft to locate whales, diesel-powered catchers of about 30 to 40 metres in length, and tow boats.

Boats and equipment employed by industry

The following two tables show details of boats and equipment engaged in the taking of fish, crustaceans and edible molluscs, pearl-shell and trochus-shell, and the number of chasers and stations engaged in whaling operations. The reservations mentioned below regarding the use of employment information are also applicable to these tables. Boats engaged in more than one industry are classified to their main activity.

FISHERIES: BOATS AND EQUIPMENT; WHALING STATIONS, 1972-73

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
General fisheries—									
Boats	No.	3,096	806	2,204	2,314	1,588	589	163	10,760
Value of boats and equipment	\$'000	15,191	8,481	29,790	17,139	25,642	8,254	9,691	114,188
Edible oyster fisheries—									
Boats	No.	2,209	..	n.a.	1	..	n.a.	..	(a)2,210
Value of boats and equipment	\$'000	n.a.	..	n.a.	1	..	n.a.	..	(a)1
Pearl-shell and trochus-shell—									
Boats(b)	No.	..	..	5	..	11	..	1	17
Whaling(b)—									
Chasers	No.	..	..	..	..	3	..	..	3
Stations operating	"	..	..	..	..	1	..	..	1

(a) Incomplete: see individual States.

(b) Source: Australian Department of Agriculture.

FISHERIES: BOATS AND EQUIPMENT, WHALING STATIONS, AUSTRALIA

		1968-69	1969-70	1970-71	1971-72	1972-73
General fisheries—						
Boats	No.	9,244	(a)8,857	(a)9,322	(a)9,591	(a)10,760
Value of boats and equipment	\$'000	64,072	(b)71,376	(b)79,711	(b)(c)80,097	(b)114,188
Edible oyster fisheries—						
Boats	No.	(d)1,788	(d)1,805	(d)1,829	(d)1,884	(e)2,210
Value of boats and equipment	\$'000	(d)1,744	(d)1,741	(e)1,844	n.a.	n.a.
Pearl-shell and trochus-shell—						
Boats(f)	No.	33	29	28	23	17
Whaling(f)—						
Chasers	No.	3	3	3	3	3
Stations operating	"	1	1	1	1	1

(a) Not comparable with 1968-69 and earlier years because of change in basis of counting in South Australia. (b) Not comparable with 1968-69 and earlier years because of change in definition of commercial fishermen in South Australia. (c) Incomplete; excludes South Australia. (d) Incomplete; excludes Tasmania. (e) Incomplete; excludes Queensland and Tasmania. (f) Source: Australian Department of Agriculture.

Employment in fisheries

Classification of registered commercial fishermen by industry

The following two tables are derived mainly from the licensing records of the various State fisheries authorities. Because the definitions and licensing procedures used by these authorities are not uniform the statistics should not be used to compare the relative productivities of fishing industries in the various States. Persons engaged in more than one industry are classified according to their main activity, and so may be classified differently from one year to the next.

PERSONS EMPLOYED ON FISHING BOATS, 1972-73(a)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
General fisheries	4,516	1,573	4,346	3,810	3,167	1,235	561	19,208
Edible oyster fisheries	1,307	..	n.a.	8	3	n.a.	..	(b)1,318
Pearl-shell and trochus-shell(c) . . . . .	..	..	133	..	94	..	6	233
Whaling(c)—								
At sea . . . . .	..	..	..	..	51	..	..	51

(a) For all States except Western Australia, the figures for general fisheries refer to number of persons (including skippers) reported as usually employed on boats. Persons reported as usually employed on more than one boat for a particular year are counted more than once for that year. For Western Australia, the figure for general fisheries refers to number of licensed commercial fishermen. (b) Incomplete; excludes Queensland and Tasmania. (c) Source: Australian Department of Agriculture.

PERSONS EMPLOYED ON FISHING BOATS: AUSTRALIA(a)

Industry	1968-69	1969-70	1970-71	1971-72	1972-73
General fisheries(b)	16,460	15,629	16,279	17,594	19,208
Edible oyster fisheries	(c)1,425	(c)1,717	(c)1,596	(d)1,402	(d)1,318
Pearl-shell and trochus-shell(e)	473	422	416	287	233
Whaling(e)—					
At sea	48	51	51	51	51

(a) See footnote (a) to the table 'Persons Employed on Fishing Boats, 1972-73' previous page. (b) Breaks in comparability of figures in this series occur in 1969-70 and 1971-72, due to changes in basis of counting in South Australia. (c) Incomplete; figure for Tasmania is not available. (d) Incomplete; excludes Queensland and Tasmania. (e) Source: Australian Department of Agriculture.

Production, processing and domestic marketing of fisheries products

Value of fisheries production

The following table shows the gross value and local value of fishing and whaling production by States. Because the value of materials used in the course of production is not available for all States it is not possible to show a comparison of net values. (See also the chapter Miscellaneous for an explanation of the value terms used.)

FISHERIES: GROSS AND LOCAL VALUE OF PRODUCTION (\$000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
GROSS VALUE								
1968-69	11,517	5,933	8,089	7,683	23,717	4,864	1,191	62,994
1969-70	13,467	5,979	8,034	8,135	19,660	4,043	3,979	63,296
1970-71	15,329	7,310	10,985	9,236	25,127	5,984	4,132	78,103
1971-72	18,970	9,507	11,382	12,380	30,817	6,808	2,793	92,657
1972-73	21,165	11,556	(a)13,375	15,915	28,347	6,577	4,617(a)	101,552
LOCAL VALUE(b)								
1968-69	9,984	5,336	7,679	6,773	23,600	4,100	1,191	58,663
1969-70	11,514	5,304	7,609	7,183	19,536	3,343	3,979	58,468
1970-71	13,224	6,462	10,458	8,177	25,028	5,116	4,132	72,596
1971-72	16,323	8,855	10,764	11,027	30,625	5,929	2,793	86,315
1972-73	16,898	10,731	12,686	14,243	28,189	5,739	4,617	93,104

(a) Incomplete; excludes oysters in Queensland. (b) Local value is gross value less marketing costs.

Production of selected fisheries

SELECTED FISHERIES PRODUCTS: PRODUCTION AND GROSS VALUE
1972-73

Product		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
QUANTITY									
Fish(a)	tonnes	21,472	10,768	(b)5,424	11,790	7,090	2,265	619	(c)59,428
Crustaceans(a)	"	2,454	(d)845	7,447	4,863	10,486	1,584	2,618	(c)30,297
Molluscs (edible)(a)	"	10,182	(e)13,831	(f)4,181	1,155	606	2,988	19	(c)32,960
Pearl-shell(g)	"	..	..	n.a.	..	n.a.	..	n.a.	(h)223.8
GROSS VALUE (\$'000)									
Fish		8,467	3,391	(b)3,238	5,614	1,749	658	380	(c)23,497
Crustaceans		4,990	(d)2,087	7,985	9,399	22,286	3,651	4,027	(c)54,424
Molluscs (edible)		7,708	(e)5,961	(f)890	902	308	2,268	7	(c)18,043
Pearl-shell(g)(i)		..	..	n.a.	..	n.a.	..	n.a.	(h)203

(a) Estimated live weight. (b) Excludes freshwater fish, particulars of which are not available. (c) Incomplete; see individual States. (d) Incomplete; excludes freshwater crayfish and crabs. (e) Incomplete; includes only abalone and scallops. (f) Incomplete; excludes oysters. (g) Source: Australian Department of Agriculture. (h) Excludes manufacturing shell produced from pearl culture operations. (i) Estimated.

SELECTED FISHERIES PRODUCTS: PRODUCTION, AND GROSS VALUE
AUSTRALIA

Product		1968-69	1969-70	1970-71	1971-72	1972-73
QUANTITY						
Fish(a)(b)	tonnes	49,049	55,335	51,632	57,002	59,428
Crustaceans(a)	"	23,205	25,293	32,273	31,313	(c)30,297
Molluscs (edible)(a)	"	(d)19,307	(e)21,623	27,672	29,479	(f)32,960
Pearl-shell(g)(h)	"	259.0	268.4	365.6	314.5	223.8
Trochus-shell(g)	"	5.9	0.2	25.5	0.7	1.1
GROSS VALUE (\$'000)						
Fish(b)		14,512	15,493	15,399	18,706	23,497
Crustaceans		36,560	34,088	46,830	54,038	(c)54,424
Molluscs (edible)		(d)6,608	(e)8,087	11,790	14,894	(f)18,043
Pearl-shell(g)(h)		152	190	275	245	203
Trochus-shell(g)		1	..	4	..	..

(a) Estimated live weight. (b) Excludes freshwater fish caught in Queensland. (c) Excludes freshwater crayfish and crabs in Victoria. (d) Excludes abalone and oysters in Western Australia. (e) Excludes mussels in Western Australia. (f) Incomplete; excludes oysters in Queensland, and includes only abalone and scallops in Victoria. (g) Source: Australian Department of Agriculture. (h) Excludes manufacturing shell produced from pearl culture operations.

Fish

FISH: PRODUCTION, BY TYPE, 1972-73
(tonnes estimated live weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.(a)
Freshwater types	229		n.a.	686	..	40	..	954
Marine types—								
Tuna	(b)6,134		28	6,696	679	40	1	13,577
Mackerel	(c)		1,244	..	85	1	17	1,347
Snoek	(c)		..	..	3	915	..	918
Mullet	2,745		1,448	353	771	7	..	5,325
Bream (including Tarwhine)	291		227	25	23	..	1	567
Australian salmon	732		..	799	1,630	461	..	3,622
Ruff	..	n.a.	..	241	1,234	..	..	1,474
Snapper	764		61	541	217	..	..	1,583
Morwong	1,311		..	..	10	7	..	1,329
Whiting	208		324	959	228	1	..	1,720
Flathead	1,548		90	17	12	39	..	1,706
Shark	1,125		18	618	652	497	..	2,909
Leatherjacket	1,277		..	..	27	..	..	1,305
Other	(d)5,108		1,985	856	1,518	257	600	(d)10,324
Total marine	21,244		5,424	11,104	7,090	2,226	619	47,706
Grand total	21,472	10,768	(e)5,424	11,790	7,090	2,265	619	59,428

(a) Incomplete, see individual States. (b) Source: C.S.I.R.O. (c) Not available separately; included in 'Other marine types'. (d) Includes mackerel and snoek. (e) Incomplete; excludes freshwater types.

GROSS VALUE OF FISH, BY PRINCIPAL TYPES, 1972-73
(\$'000)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.(a)
Tuna	2,062		5	2,545	147	12	..	4,771
Mackerel	(b)		825	..	40	..	12	878
Snoek	(b)		..	..	1	129	..	130
Mullet	912		447	124	202	2	..	1,687
Bream (including Tarwhine)	311		110	18	9	..	1	448
Australian salmon	129		..	229	171	98	..	627
Ruff	..	n.a.	..	80	163	..	..	243
Snapper	799		56	341	84	..	..	1,280
Morwong	493		..	..	3	2	..	498
Whiting	221		264	1,444	110	(b)	..	2,039
Flathead	727		49	8	3	11	..	798
Shark	240		3	154	235	186	..	818
Leatherjacket	454		..	..	9	..	..	463
Other	(c)2,120		(e)1,480	671	570	(d)216	367	(cd)5,424
Total fish	8,467	3,391	(e)3,238	5,614	1,749	658	380	23,497

(a) Incomplete; see individual States. (b) Not available separately; included in 'Other'. (c) Includes mackerel and snoek in New South Wales. (d) Includes value of whiting and seaweed in Tasmania. (e) Incomplete; excludes freshwater types.

FISH: PRODUCTION, BY TYPE, AUSTRALIA
(tonnes estimated live weight)

Type	1968-69	1969-70	1970-71	1971-72	1972-73
Freshwater types(a)	768	678	1,018	1,153	(b)954
Marine types—					
Tuna(c)	8,916	8,450	6,802	10,237	(b)13,577
Mackerel	796	763	903	900	(b)(d)1,347
Snook	3,895	4,124	2,951	2,245	(b)(d)918
Mullet	5,072	5,272	5,527	4,705	(b)5,325
Bream (including Tarwhine)	901	936	945	815	(b)567
Australian salmon	4,293	4,764	3,463	5,246	(b)3,622
Ruff	822	865	834	1,220	(b)1,474
Snapper	1,319	1,600	1,710	1,770	(b)1,583
Morwong	1,192	852	1,029	1,179	(b)1,329
Whiting	1,741	2,070	1,859	1,852	(b)1,720
Flathead	2,756	2,793	2,341	2,390	(b)1,706
Shark	7,175	7,743	7,314	7,310	(b)2,909
Leatherjacket	369	762	946	879	(b)1,305
Other.	9,033	13,663	13,988	15,099	(b)(e)10,324
<i>Total marine.</i>	<i>48,280</i>	<i>54,658</i>	<i>50,614</i>	<i>55,849</i>	<i>(b)47,706</i>
Grand total	49,049	55,335	51,632	57,002	59,428

(a) Excludes freshwater fish caught in Queensland, particulars of which are not available. (b) Incomplete; excludes Victorian figure, which is not available for publication. (c) Includes estimate by C.S.I.R.O. for New South Wales. (d) Figure for New South Wales is not available separately, and has been included in 'Other'. (e) Includes mackerel and snook in New South Wales.

Crustaceans

CRUSTACEANS: PRODUCTION, BY TYPE, 1972-73
(tonnes estimated live weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Rock lobster(a)	182	830	173	3,066	7,352	1,583	23	13,209
Prawns	2,128	14	6,892	1,789	3,038	..	2,584	16,446
Crabs	144	n.a.	382	9	96	1	11	(b)643
Total	2,454	(c)845	7,447	4,863	10,486	1,584	2,618	(d)30,297

(a) Includes Murray crayfish caught in New South Wales, bay lobster taken in New South Wales, Queensland, Western Australia and the Northern Territory, and yabbies taken in South Australia. (b) Excludes Victorian catch, which is not available for publication. (c) Excludes freshwater crayfish and crabs. (d) Incomplete; see individual States and species.

CRUSTACEANS: PRODUCTION, BY TYPE, AUSTRALIA
(tonnes live weight)

Type	1968-69	1969-70	1970-71	1971-72	1972-73
Rock lobster	(a)13,101	(b)11,460	(c)13,043	(d)13,220	(e)13,209
Prawns	9,713	13,366	18,752	17,520	16,446
Crabs	390	468	477	573	(f)643
Total	23,205	25,293	32,273	31,313	(g)30,297

(a) Includes Murray crayfish caught in New South Wales and Victoria and bay lobster taken in Queensland. (b) Includes bay lobster taken in New South Wales and Western Australia, in addition to items in footnote (a). (c) Includes yabbies taken in South Australia, in addition to items in footnotes (a) and (b). (d) Includes yabbies taken in Victoria, in addition to items in footnotes (a), (b) and (c). (e) For inclusions see footnote (a) to previous table. (f) Excludes Victorian figure, which is not available for publication. (g) Incomplete; see individual species.

Molluscs (edible)

MOLLUSCS: PRODUCTION, BY TYPE, 1972-73

(tonnes estimated live weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Octopus . . . . .	..	} n.a.	..	36	3	..	..	(a)39
Squid . . . . .	..		98	43	21	154	..	(a)315
Cuttlefish . . . . .	..		..	..	..	..	..	(a)
Oysters	9,027		n.a.	9	..	147	19	(a)9,202
Mussels	23		..	..	..	..	..	(a)23
Pipi . . . . .	..		..	117	..	..	..	(a)117
Scallops	114	11,807	4,082	49	257	515	..	16,825
Abalone	1,018	2,023	..	900	325	2,172	..	6,438
Total	10,182	(b)13,831	(b)4,181	1,155	606	2,988	19	(a)32,960

(a) Incomplete; see individual States. (b) Incomplete; see individual species.

MOLLUSCS: PRODUCTION, BY TYPE, AUSTRALIA

(tonnes estimated live weight)

Type	1968-69	1969-70	1970-71	1971-72	1972-73
Octopus	(a)	(a)	86	65	(b)39
Squid	(c)185	(d)287	194	209	(b)315
Cuttlefish	(a)	(a)	19	2	(b) . .
Oysters	(e)7,519	9,359	9,807	10,434	(b)9,202
Mussels	54	(e)304	535	577	(b)23
Pipi . . . . .	..	..	47	86	(b)117
Scallops	5,012	5,550	9,293	10,148	16,825
Abalone	(e)6,539	6,123	7,692	7,958	6,438
Total	(f)19,307	(f)21,623	27,672	29,479	(f)32,960

(a) Included with squid. (b) Excludes Victorian figure, which is not available for publication. (c) Includes octopus, and cuttlefish in all States except Western Australia. (d) Includes cuttlefish and octopus. (e) Excludes Western Australian figure, which is not available for publication. (f) Incomplete; see individual species.

Pearls, pearl-shell and trochus-shell

PEARL CULTURE AND PEARL AND TROCHUS SHELL FISHING OPERATIONS AUSTRALIA(a)

(Source: Australian Department of Agriculture)

	1968	1969	1970	1971	1972
QUANTITY					
Pearl and Trochus shell fishing operations—					
Production of—					
Pearl shell(b) tonne	259.0	268.4	365.6	314.5	223.8
Trochus shell tonne	5.9	0.2	25.5	0.7	1.1
Pearl culture operations—					
Live shell introduced No.	838,622	796,831	444,727	333,280	432,318
. tonne	447.2	410.8	179.8	107.4	139.6
Production—					
Round and baroque pearls No.	76,337	77,858	80,445	107,777	132,677
. momme(c)	42,854	44,334	48,314	62,179	72,526
Half pearls No.	522,247	631,476	472,259	413,964	137,813
Manufacturing shell tonne	216.8	265.9	237.1	164.3	103.0

For footnotes see next page.

**PEARL CULTURE AND PEARL AND TROCHUS SHELL FISHING OPERATIONS
AUSTRALIA(a)—continued**

	1968	1969	1970	1971	1972
VALUE					
(\$'000)					
Pearl and Trochus shell fishing operations—					
Production of—					
Pearl shell	152	190	275	245	203
Trochus shell	1	..	4	..	..
Pearl culture operations—					
Production of—					
Round and baroque pearls	2,499	3,020	2,029	3,165	3,851
Half pearls	1,165	1,409	606	366	204
Manufacturing shell	86	120	116	89	59

(a) Figures refer to the year ended January for the Northern Territory and Queensland and to the year ended December for Western Australia. (b) Excludes manufacturing shell produced from pearl culture operations. (c) A momme is a pearl weight measurement equivalent to 3.769 grams.

Whales

WHALES TAKEN(a): AUSTRALIA
(Source: Australian Department of Agriculture)
(Number)

	1969	1970	1971	1972	1973
Male	637	775	820	792	684
Female	42	24	40	161	287
Total	679	799	860	953	971

(a) Sperm-whales only were taken.

Processing of fish, crustaceans and molluscs

Ice is extensively used for the chilling of fish taken in estuarine and inshore fisheries. Refrigeration is used particularly on vessels operating in the tuna fishery and prawn fisheries to chill or freeze the catch. Refrigerated brine tanks are most commonly used.

Processing plants are located strategically throughout Australia close to fishing grounds. In recent years a number of shore-based plants have been established in remote areas of northern Australia to service the expansion of the prawn fishery.

Rock lobsters, prawns and scallops are frozen for export; tuna, snoek, Australian salmon and abalone are canned; small amounts of fish are smoked; some molluscs are bottled. Hand labour is still used extensively in processing operations, but mechanisation is being progressively introduced.

Fish, crustaceans and molluscs intended for export are processed in establishments registered under the Export (Fish) Regulations. Edible fish for local consumption is mainly dispatched fresh iced to markets. A survey of the Australian seafood processing industry was published by the Department of Trade and Industry in 1971.

FISH PROCESSING: AUSTRALIA

(tonnes)

	1968-69	1969-70	1970-71	1971-72	1972-73
Fish used—					
Whole	11,486	11,182	8,707	10,893	13,107
Headed and/or gutted	2,350	2,246	1,392	1,473	1,440
Production—					
Smoked fish	620	616	694	557	640
Fish paste					
Fish meal					
Canned fish—					
Shellfish, canned or bottled(a)	989	1,332	1,679	1,758	1,474
Australian salmon	1,981	2,520	1,923	2,226	2,021
Tuna	4,768	4,564	3,227	4,073	5,242
Other (including fish loaf, cake, etc.)					

(a) Other than lobsters, crayfish, oysters or clams, production figures for which are negligible, or not available for publication.

Whale processing

Oil from sperm whales is used in the manufacture of soap, plastics and watch lubricants, and in automatic transmission systems in motor cars.

WHALE PROCESSING: AUSTRALIA

(Source: Australian Department of Agriculture)

		1969	1970	1971	1972	1973
Quantity of sperm whale oil produced	barrels(a)	26,142	31,686	36,414	34,632	32,952
Value of whale oil produced	\$'000	607	1,082	1,390	993	951
Value of by-products (meal, meat, solubles, etc.)	"	349	481	553	585	624
Total value of products	"	956	1,563	1,943	1,578	1,575

(a) 6 barrels = approximately 1.016 tonnes.

Domestic marketing of fisheries products

Although virtually the whole of the tuna and Australian salmon catches and a large proportion of the snoek catch are canned, the greater part of Australian fish production is marketed fresh or frozen.

Marketing arrangements for fresh fish vary. In New South Wales fish marketing is the responsibility of the Fish Marketing Authority, which operates the Metropolitan and Wollongong Fish Markets. In other coastal centres of New South Wales fishermen's co-operatives may become registered as local fish markets. In Queensland the Fish Board sells all production on behalf of fishermen in that State, except fish intended for export and interstate trade. In Victoria, South Australia, Western Australia and Tasmania there is no restriction on market outlets. In South Australia the majority of fishermen are members of the South Australian Fishermen's Co-operative Ltd, which handles most of their production. Other outlets for fish products include retail and catering establishments.

Consumption of edible fisheries products

Particulars of the estimated supplies of fish, crustaceans and molluscs available for consumption per head of population, in terms of edible weight, are included in the following table. For the purpose of compiling this table, an allowance has been made for the non-commercial fish catch.

**FISHERIES PRODUCTS: ESTIMATED SUPPLIES AVAILABLE FOR CONSUMPTION
AUSTRALIA**

(kg edible weight per person per annum)

	1968-69	1969-70	1970-71	1971-72	1972-73
Fresh or frozen—					
Fish—					
Australian origin(a)	1.6	1.8	1.6	1.7	1.7
Imported	1.7	1.6	2.1	1.5	1.5
Crustaceans and molluscs	0.7	0.7	1.0	1.0	0.8
Cured (including smoked and salted)	0.5	0.4	0.5	0.3	0.3
Canned—					
Australian origin(a)	0.5	0.6	0.5	0.5	0.3
Imported	1.0	0.9	0.9	0.9	0.9
Total	5.9	6.0	6.5	5.9	5.5

(a) Estimates have been calculated by subtracting export figures from production figures. In the case of fresh or frozen fish, an allowance of 10 per cent has been added to the commercial production figure to allow for non-commercial catch.

Overseas trade in fisheries products

Edible fisheries products

OVERSEAS TRADE IN EDIBLE FISHERIES PRODUCTS: AUSTRALIA

	Quantity (tonnes)			Value (\$'000 f.o.b.)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
IMPORTS						
Fresh, chilled, frozen or boiled(a)(b)	30,218	23,297	19,197	21,508	17,792	15,739
Smoked, dried, salted or in brine	3,806	3,825	2,946	3,128	3,106	2,835
Potted or concentrated	97	79	95	210	149	225
Canned—						
Herrings	2,297	1,936	1,994	1,434	1,436	1,377
Salmon	4,311	5,465	4,590	6,989	8,659	7,841
Sardines, sild, brisling, etc.	2,293	2,720	3,090	2,383	3,272	3,588
Tuna	71	115	38	63	131	43
Other fish	1,200	1,232	2,372	1,116	1,177	1,884
Crustaceans and molluscs	868	980	1,071	1,763	2,080	2,200
Total canned	11,040	12,448	13,155	13,748	16,755	16,933
Other prepared or preserved fish, crustaceans and molluscs(b)	2,162	2,376	11,030	3,100	3,547	11,432
Grand total . . . . .	..	..	..	41,694	41,349	47,164
EXPORTS						
(Australian produce only; excludes re-exports)						
Fresh, chilled or frozen(c)—						
Fish	1,632	3,113	3,767	800	1,473	1,776
Crustaceans and molluscs—						
Rock lobster tails	4,455	4,652	4,544	27,333	33,074	29,783
Prawns	6,615	7,847	6,457	16,930	26,027	23,721
Other	2,224	2,270	3,362	4,488	5,279	8,620
Crustaceans and molluscs boiled in water	331	345	644	889	1,087	2,234
Prepared and preserved—						
Fish	550	314	439	545	353	649
Crustaceans and molluscs	2,292	2,537	2,195	4,546	5,877	5,501
Other edible fisheries products	64	51	79	84	75	163
Grand total . . . . .	..	..	..	55,615	73,245	72,447

(a) Excludes frozen smoked, which is included in item Smoked, dried, etc. (b) 1972-73 figures for 'fresh, chilled, etc.' edible fisheries products are not comparable with those for previous years, as the item 'fish fingers or fish sticks in packs under 500 grams', formerly included in 'fresh, chilled, etc.' is now included in 'Other prepared or preserved fish, crustaceans and molluscs.' (c) Excludes frozen smoked, which is included in item Other edible fisheries products.

Non-edible fisheries products

OVERSEAS TRADE IN SELECTED NON-EDIBLE FISHERIES PRODUCTS: AUSTRALIA

		Quantity			Value (\$'000 f.o.b.)		
		1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
IMPORTS							
Fish heads, fresh or frozen	tonnes	429	1,173	1,972	70	208	262
Other fish waste	"	1,586	1,241	1,109	241	197	190
Fish, live(a)	'000	4,545	6,031	6,201	332	461	494
Fish meal	tonnes	31,797	27,382	14,110	4,969	3,988	2,054
Whale oil	'000 litres	4,105	482	146	834	124	46
Cod-liver oil	"	346	314	342	118	114	115
Other oils (including seal oil)	"	736	536	748	138	158	145
Coral and shells and their waste	tonnes	82	63	91	40	30	33
Tortoise shell (including turtle shell, claws, waste)	"	2	..	..	18	..	..
Pearls	"	..	..	..	832	132	142
Total		..	..	..	7,592	5,412	3,481
EXPORTS							
(Australian produce only; excludes re-exports)							
Australian produce—							
Whale oil	'000 litres	8,528	6,278	7,685	1,405	1,014	995
Other oils	"	5	5	2	1	2	1
Pearl-shell	tonnes	611	459	560	601	456	547
Other shell (including trochus)	"	77	154	302	24	39	86
Natural pearls	"	..	..	..	18	8	86
Cultured pearls—							
Round	No.	105,024	38,749	89,065	1,561	536	1,038
Baroque	"	10,875	4,018	2,323	67	23	14
Half round	"	245,570	181,035	159,195	479	360	299
Other	"	..	..	..	20	4	34
Total		..	..	..	4,176	2,443	3,100

(a) Live fish whether or not fit for human consumption.

CHAPTER 26

MINERAL INDUSTRY

Further detailed statistics and information on the subjects dealt with in this chapter are contained in the annual printed bulletin *The Australian Mineral Industry—Annual Review* and other publications issued by the Bureau of Mineral Resources, Geology and Geophysics, which also issues, in conjunction with this Bureau, a quarterly publication, *The Australian Mineral Industry, (Quarterly Review and Statistics)* (10.17). The annual statistical bulletins *Mining Establishments, Summary of Operations (Preliminary)* (10.72), *Mining Establishments, Details of Operations* (10.60), *Mineral Production* (10.51), *Mineral Exploration* (10.41), *Mineral Exploration (other than for Petroleum) (Preliminary)* (10.71) and *Mining Industry, Foreign Ownership and Control* (10.42) of this Bureau contain economic statistics of the industry prepared and published as soon as possible after the data have been compiled. A monthly statistical bulletin *Minerals and Mineral Products* (10.19) is issued also, and other current statistics on mining or mine products are contained in the *Quarterly Summary of Australian Statistics* (1.3), the *Monthly Review of Business Statistics* (1.4), the *Digest of Current Economic Statistics* (1.5), and the *Monthly Bulletin of Production Statistics* (12.14).

GENERAL

Geology

General geology

Most of the western and central part of the Australian continent consists of basement rocks of Precambrian age. Younger Palaeozoic rocks, mostly of geosynclinal origin, form a discontinuous belt several hundred miles wide extending from north Queensland to Tasmania. Mesozoic platform sediments form a broad zone separating the Palaeozoic and Precambrian rocks and extending from the Gulf of Carpentaria to central New South Wales. Cainozoic rocks occur mainly in Victoria, south-western New South Wales and southern South Australia, and as residual basalt cappings over extensive areas of the Palaeozoic rocks of eastern Australia.

Economic geology

Minerals of economic significance occur widely throughout the Precambrian and Palaeozoic rocks of the continent. Palaeozoic mineralisation is perhaps more varied, but the Palaeozoic deposits now being worked are in general smaller than those found in Precambrian rocks. Most of Australia's metallic mineral deposits occur within two broad regions, a region of Precambrian rocks in the west and central areas of the continent and a region of younger Palaeozoic rocks in the east.

The major deposits of metallic ore minerals, including those of iron, lead, zinc, silver, copper, uranium, nickel, and gold, are contained in the Precambrian rocks of the Australian shield. Smaller deposits of ores of tin, tungsten, tantalum, beryllium, manganese, cobalt, and mica are also contained in these rocks.

The mineralised Palaeozoic rocks contain major deposits of gold, now mostly worked out, and a few large copper and lead-zinc-silver ore occurrences. Smaller amounts of ores of tin, tungsten, molybdenum, bismuth, antimony, and ores of other metals also occur in these rocks.

Outside these two main categories, however, there are some metallic mineral deposits of considerable economic importance which were formed during the Tertiary Period. These include bauxite (the ore of aluminium) which occurs as a surface capping over rocks of various ages, the result of a long period of weathering and reworking. Extensive deposits of bauxite occur at Weipa on Cape York Peninsula in north Queensland, at Gove on the north-eastern tip of the Northern Territory, in the Darling Range in Western Australia and near Kalumburu in the north-west of Western Australia.

Other important deposits which are the results of weathering are the lateritic nickel deposits at Greenvale and Rockhampton in Queensland, and in the Kalgoorlie and Wingellina areas of Western Australia. Mineral sands, another important exception, contain rutile and ilmenite (ores of titanium), zircon (zirconium ore), monazite (thorium ore), and other minerals, and are particularly well developed on the coasts of central and northern New South Wales, southern Queensland and south-western Western Australia. The immediate source of the deposits of the eastern States is considered to be Mesozoic sedimentary rocks. The Western Australian deposits are thought to be derivatives of the Precambrian granites of the Australian shield.

Occurrences of fuel minerals (coal, oil and natural gas) are characteristically located in sedimentary basins. Large areas of Australia are covered by these basins, and more than twenty major sedimentary basins have been identified on the Australian mainland. In addition, sedimentary basins are known to exist in off-shore areas adjacent to the Australian coast. The individual basins range in area from 10,000 to 1,760,000 square kilometres and contain marine and continental sedimentary rocks ranging in maximum thickness from 300 to about 10,000 metres and including rocks of all ages from Proterozoic to Tertiary.

The main Australian deposits of black coal are in eastern Queensland and New South Wales. Most are Permian in age, although the deposits at Ipswich in Queensland are Triassic, and they predominantly have a bituminous rank; both coking and non-coking types occur. The extensive brown coal deposits of Victoria were formed during the Tertiary Period and are used to produce electricity for that State. The Late Triassic sub-bituminous coal at Leigh Creek is used to produce electricity in South Australia and Permian sub-bituminous coal is mined at Collie in Western Australia.

Crude oil and natural gas have been found in a number of sedimentary basins. In the Bowen-Surat Basin, Queensland, small commercial deposits of oil exist at the Moonie, Alton, Bennett and Major fields, and commercial deposits of natural gas exist in the Roma, Surat and Rolleston areas. Gas from the Roma area is used to supply Brisbane. Small gas reserves are present at Gilmore in the Adavale Basin. Most of the oil reservoir rocks are of Lower Jurassic age, and the gas reservoir rocks are of Mesozoic and Permian age. In the Gippsland Basin, offshore from Victoria in Bass Strait, oil in commercial quantities has been discovered in the Kingfish, Halibut, Tuna, Barracouta and Mackerel fields and commercial natural gas in the Marlin, Barracouta, Snapper and Tuna fields. Cretaceous and Tertiary strata are the reservoir rocks. Eastern Victoria and Melbourne are now supplied with gas from Marlin and Barracouta fields; oil is being piped from Kingfish, Halibut and Barracouta. Commercial deposits of natural gas were discovered in the Cooper Basin, South Australia at Gidgealpa, Moomba, Daralingie, Toolachee, Merrimelia, Della, Strzelecki, Mudrangie, Moorari, Coonatie, Fly Lake, Big Lake, Dullingari, Brumby, Kanowana and Burke, and gas and oil at Tirrawarra, Moorari, Fly Lake and Brologa, all in South Australia, and gas accumulations at Roseneath and Epsilon, Queensland. The reservoir rocks are of Permian age. In the Carnarvon Basin, Western Australia, commercial crude oil, mainly in the Cretaceous formations, and also to a lesser degree in the Jurassic rocks, is being produced from Barrow Island. Offshore, on the north-west continental shelf, major gas deposits have been discovered at Scott Reef, Rankin, Goodwyn, Angel and North Rankin; oil was discovered at Rankin, Legendre, Madeleine, Eaglehawk, Egret, Lambert, Dockrell and Goodwyn but these are at present non-commercial. Further south, onshore in the Perth Basin, natural gas in commercially significant quantities was discovered in the Yardarino, Gingin, Dongara, Mondarra and Walyering areas, the reservoir rocks being of Lower Jurassic, Lower Triassic and Permian ages. High pressure natural gas was encountered in the offshore Bonaparte Gulf Basin in the Petrel, Tern and Puffin prospects. Natural gas was discovered in commercial quantities in formations of Ordovician age at Mereenie and Palm Valley in the Amadeus Basin, Northern Territory. These are not yet being exploited but several proposals are under consideration. The gas accumulation at Mereenie is underlain by oil in the same Pacoota Sandstone reservoir.

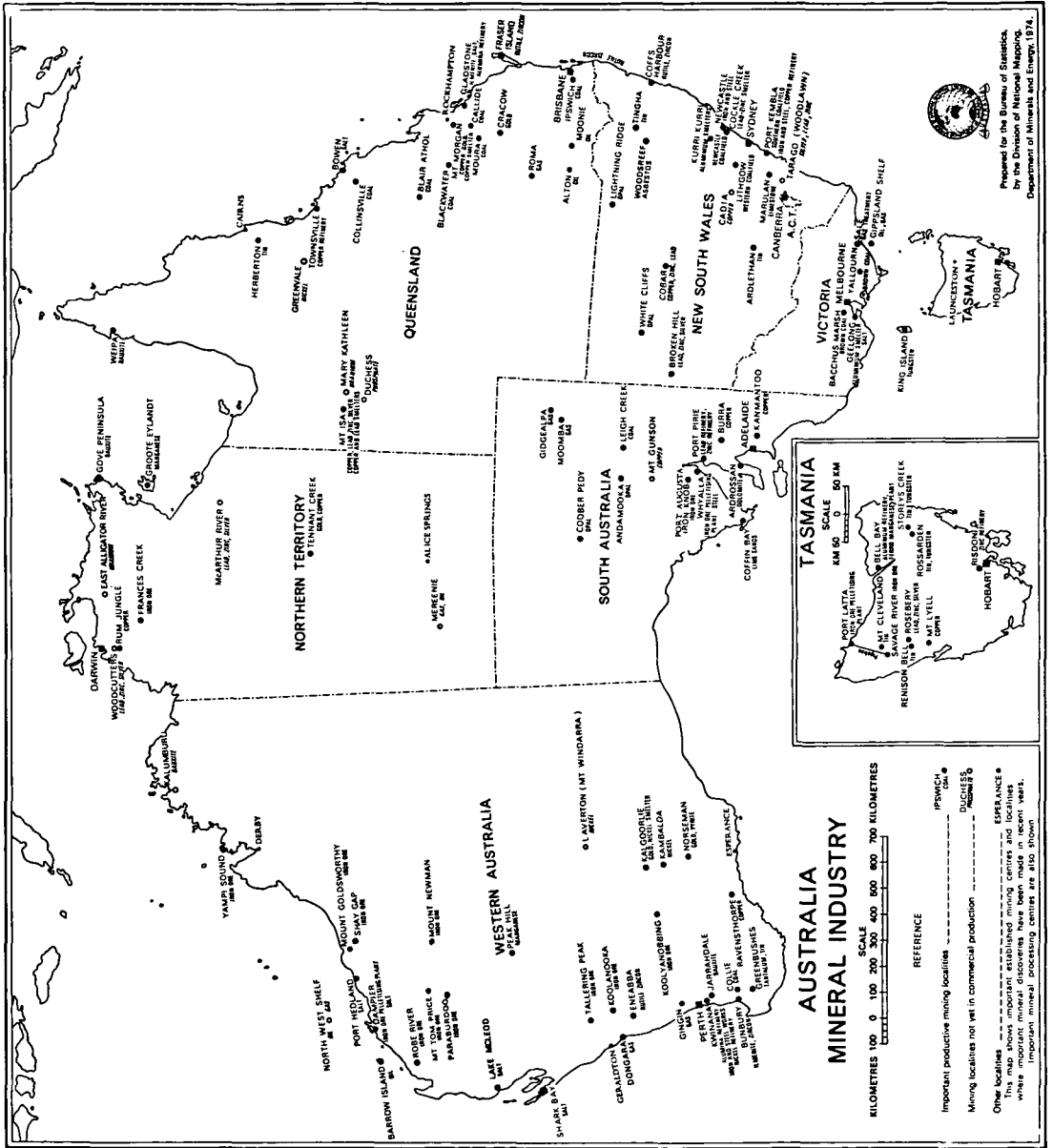
The most important non-metallic minerals are asbestos, clays, sand and gravel, limestone, gypsum, salt and silica.

Opal is found in the flat-lying sedimentary beds of the Great Artesian Basin in Queensland, New South Wales and South Australia and was formed during the Tertiary Period. The other important gemstone produced is sapphire from alluvial wash near Inverell and Glen Innes in New South Wales and Anakie in Queensland.

A table showing most of the larger mineral deposits now being mined in Australia according to the age of the geological formation in which they are found is shown on page 931.

PRINCIPAL AUSTRALIAN MINERAL DEPOSITS

<i>Age of geological formation in which located</i>	<i>Metal or mineral</i>	<i>State or Territory</i>	<i>Locality</i>
Precambrian (more than 570 million years old)	Copper	Queensland	Mount Isa, Gunpowder
	Gold	Northern Territory	Tennant Creek
		Western Australia	Kalgoorlie and other localities
	Iron	South Australia	Middleback Ranges
	Lead-silver-zinc	Western Australia	Yampi Sound and Pilbara
Palaeozoic (between 235 and 570 million years old)		New South Wales	Broken Hill
	Nickel	Queensland	Mount Isa
		Western Australia	Kambalda-Windarra- Scotia-Nepean
	Black coal	New South Wales	Hunter Valley, Lithgow, South Coast
		Queensland	Bowen Basin, Blair Athol
		Western Australia	Collie
	Copper	New South Wales	Cobar
	Copper-gold	Queensland	Mount Morgan
		Tasmania	Mount Lyell
	Iron	Tasmania	Savage River
Lead-silver-zinc	Tasmania	Rosebery	
Tin (lode)	Queensland	Herberton	
	New South Wales	Ardlethan	
	Tasmania	Renison, Luina and north-east of State	
	Tasmania	King Island and north-east of State	
Mesozoic (between 65 and 235 million years old)	Black coal	Queensland	Ipswich, Callide
		South Australia	Leigh Creek
Cainozoic (less than 65 million years old)	Manganese	Northern Territory	Groote Eylandt
	Bauxite	Queensland	Weipa
		Northern Territory	Gove
		Western Australia	Darling Range
	Brown coal	Victoria	Gippsland
	Mineral sands	New South Wales	North coast
		Queensland	South coast
		Western Australia	South-west coast
Nickeliferous laterite	Queensland	Greenvale	
Tin (alluvial)	New South Wales	Tingha	
	Queensland	Herberton	
	Tasmania	North-east of State	



Prepared for the Bureau of Statistics
by the Division of National Mapping,
Department of Minerals and Energy, 1974.

PLATE 55

Mineral resources

Australia is self-sufficient in most minerals of economic importance and much more than self-sufficient in some. The following table summarises, in a general way, known reserves and production of the principal metals and minerals in relation to Australian consumption of these commodities and present export availability. Many qualifications are necessary to a simple summary of this kind, and the table should be read in conjunction with the following detailed notes on principal minerals.

RESERVES OF MINERALS: AUSTRALIA

(Source: Bureau of Mineral Resources, Geology and Geophysics)

<i>Production</i>	<i>Reserves adequate</i>	<i>Reserves uncertain</i>	<i>Reserves negligible</i>
Production sufficient for domestic demand and exports	Aluminium (bauxite) Barite Bismuth Cadmium Coal (black) Copper Gold Gypsum Iron ore Lead Manganese ore (metallurgical) Natural gas Nickel Opal Salt Silver Thorium (monazite) Tin Titanium (ilmenite and rutile) Tungsten Zinc Zirconium (zircon)	Antimony Beryllium Glass sands Talc Tantalum	
Production sufficient for domestic demand	Clays (except light grade china clay) Coal (brown) Dolomite Felspar		
Production not sufficient for domestic demand	Asbestos (chrysotile) Lithium Phosphate Sulphides (as source of sulphur) Limestone	Abrasives Arsenic Bentonite China clay Chromium Cobalt Crude oil Diatomite Fluorite Magnesite Mercury Mineral pigments Molybdenum Platinum Potassium salts Sillimanite	
Production nil	Vanadium	Diamonds Graphite Manganese ore (chemical) Vermiculite	Asbestos (crocidolite) Borates Nitrates Sulphur

Individual minerals

NOTE. For further information on recent developments see pages 978-80.

Bauxite. As a result of discoveries at Weipa, Queensland, Gove, Northern Territory, and in the Darling Range and Kimberley area in Western Australia, Australia's reserves of bauxite are known to be very large, perhaps the largest in the world. Total reserves in the Weipa area are believed to be in excess of 3,000 million tonnes, while proved reserves at Gove are reported to contain 250 million tonnes of bauxite. In the Darling Range, reserves of economic grade bauxite are estimated to be about 1,000 million tonnes spread over several locations. Another significant deposit of over 200 million tonnes has been proved in the Mitchell Plateau area in the Kimberley District of Western Australia.

Coal. Australia has coal resources of all types adequate to provide for future domestic requirements and a substantial export surplus. Australia's coal reserves are concentrated mainly in the mainland eastern States. The bituminous coal is located mainly in New South Wales and Queensland; Victoria has very substantial brown coal reserves in the Latrobe Valley. The value of coal production in 1973 was second only to iron ore, as was the value of coal exports. Reserves of black coal in Eastern Australia were estimated in 1973 to be not less than 200,000 million tonnes.

Copper. The principal deposit of this metal is at Mount Isa, Queensland where ore reserves were estimated at 141 million tonnes in 1972. Other important deposits are situated at Cobar, New South Wales; Mount Morgan and Gunpowder, Queensland; Mount Lyell, Tasmania; Kanmantoo and Mount Gunson, South Australia; and at Tennant Creek, Northern Territory. Copper concentrates are produced as by-products of nickel concentrate production at Kambalda, Western Australia; silver-lead-zinc concentrate production at Broken Hill, New South Wales; tin concentrate production at Luina, Tasmania and lead concentrate production at Rosebery, Tasmania.

Crude Oil. The aggregate recoverable reserves of crude oil in Australia at the end of 1973 were estimated to be 260 million cubic metres. The largest reserves (216 million cubic metres) are in the offshore Gippsland Basin fields (Barracouta, Marlin, Halibut, Kingfish, Tuna, Mackerel), Victoria, followed by those in the Barrow Island and Pasco Island fields in the Carnarvon Basin, Western Australia (27 million cubic metres), the Mereenie field in the Amadeus Basin, Northern Territory (9.5 million cubic metres), the Tirrawarra, Moorari and Brolga fields in the Cooper Basin, South Australia (7.0 million cubic metres), the Moonie, Alton and Bennett fields in the Surat Basin, Queensland (413,000 cubic metres) and in the Dongara and Yardarino fields in the Perth Basin, Western Australia (210,000 cubic metres). To the end of 1973 the cumulative production of crude oil in Australia accounted for 78 million cubic metres representing a 23 per cent depletion of the initial estimates of reserves in all crude oil accumulations in Australia.

The Queensland oil reserves, mainly those in the Moonie field, are depleted by nearly 88 per cent, those in the Carnarvon Basin fields by 35 per cent and the offshore Gippsland Basin reserves by 21.7 per cent.

Gold. Australia's gold resources are heavily concentrated in Western Australia, mainly in the Kalgoorlie-Coolgardie area, but small deposits of gold-bearing ore occur in all States. In addition, gold is commonly obtained as a by-product of other mining activities, particularly copper mining. Economic gold ore reserves at Kalgoorlie were estimated at 5.3 million tonnes in late 1973.

Iron ore. Very extensive deposits of iron ore have been discovered, establishing Australia as one of the most important iron ore provinces in the world. The largest deposits are located in the Hamersley and Ophthalmia Ranges in the Pilbara region of north-west Western Australia, and are being worked at Mount Tom Price, Paraburdoo, Mount Whaleback, and Robe River. Other commercially important deposits of iron ore are situated in the Savage River area of Tasmania, in the Middleback Ranges of South Australia, and in the Mount Goldsworthy, Shay Gap, Yampi Sound, and Koolyanobbing areas in Western Australia. These deposits are adequate to supply the estimated needs of the Australian iron and steel industry far into the future, as well as providing a large export availability. Total Australian reserves with an iron content greater than 55 per cent are estimated to be at least 24,400 million tonnes.

Lead-zinc. Australia has been a major producer of lead and zinc since the discovery of ore at Broken Hill, New South Wales in 1883. Measured reserves of lead-zinc ore at Broken Hill currently exceed 16 million tonnes assaying more than 20 per cent combined lead and zinc. Reserves at another major producing mine, Mount Isa in Queensland, are 55.6 million tonnes assaying 6.9 per cent lead and 6.3 per cent zinc. Preparations are now being made to start production from a new mine, the Hilton, near Mount Isa with reserves of 37.4 million tonnes of ore, assaying 7.7 per cent lead and 9.6 per cent zinc. Reserves at the Lady Loretta deposit, near Mount Isa, are 8.7 million tonnes of ore assaying 6.7 per cent lead and 18.1 per cent zinc. The capacity of the mine at Rosebery in Tasmania (reserves of 9.5 million tonnes, 5.6 per cent lead and 18.6 per cent zinc) has been increased. Development of the McArthur River deposit in Northern Territory (reserves of 200 million tonnes,

4 per cent lead and 9 per cent zinc) is dependent on the solution of complex metallurgical problems. A deposit discovered near Tarago, near Goulburn, N.S.W. will commence production towards the end of 1977; reserves are estimated at 9 million tonnes assaying 3.0 per cent lead, 7.5 per cent zinc and 1.5 per cent copper. Lead and zinc concentrates are being produced with copper concentrates at Cobar, New South Wales.

Manganese. Known reserves of manganese, exceed domestic requirements and Australia is a major exporter. The principal deposit is currently being worked at Groote Eylandt in the Gulf of Carpentaria.

Mineral Sands. Ores of titanium (rutile and ilmenite), zirconium (zircon) and thorium and rare earths (monazite) occur in mineral sands over extensive areas of the north and central coasts of New South Wales, the south and central coasts of Queensland, and the south-western coast of Western Australia and at Eneabba, 270 kilometres north of Perth. Resources are large by world standards and easily workable. Australia's reserves of rutile and zircon represent a large proportion of the world's reserves of these minerals. In 1972 Australia was responsible for about 98 per cent of the world's supplies of rutile, 80 per cent of zircon, 36 per cent of monazite and 25 per cent of ilmenite (excluding Canadian production of titaniferous slag).

Natural gas. The aggregated recoverable reserves of natural gas in the offshore and onshore accumulations were estimated at the end of 1973 at 832 thousand million (billion) cubic metres. Of this amount 12 billion cubic metres, or 1.5 per cent, have been produced; the remaining reserves at 1 January 1974 were, therefore, 820 billion cubic metres. Largest gas reserves are in four fields—Rankin, North Rankin, Goodwyn and Angel—in the Dampier Sub-basin (Carnarvon Basin) on the North-west Shelf, offshore from Western Australia. No firm plans have yet been announced for the development and utilisation of these substantial reserves. The next largest remaining gas reserves (220 billion cubic metres) are in the offshore Gippsland Basin, Victoria. Production commenced from here in 1969, and gas is supplied to Melbourne, Geelong and Ballarat—Bendigo areas and a Melbourne—Benalla—Wodonga—Albury pipeline is planned. The 96 billion cubic metres of gas reserves in the Cooper Basin, South Australia, had been committed for the supply of the Adelaide, South Australia and the New South Wales markets. The supply of the Adelaide market commenced in November 1969. The 1,370 kilometre pipeline to Sydney is now under construction. The relatively small gas reserves in the Roma area in Queensland and Dongara—Mondarra—Gingin area in Western Australia have been supplying the Brisbane and Perth—Perth—Pinjarra areas since 1969 and 1971 respectively.

Natural gas liquids. The Australian reserves of natural gas liquids, i.e. condensate and LPG (liquified petroleum gas), remaining at the end of 1973 were estimated at 208 million cubic metres. On the whole these reserves are distributed proportionately to the reserves of natural gas, the largest being in the North-west Shelf fields, followed by those in the offshore Gippsland Basin, then Cooper Basin, etc., but generally, the natural gas liquid (NGL) content of the North-west Shelf gas is considerably higher than that of gas accumulations elsewhere in Australia. A separate 'liquids' pipeline for the transmission of NGL and crude oil from the Cooper Basin fields to Red Cliffs near Port Pirie, South Australia, has been under consideration for some time.

Nickel. In the Kalgoorlie—Widgiemooltha area of Western Australia more than 30 nickel sulphide ore bodies have been found since the original discovery of nickel ores was made at Kambalda in 1966. Total ore reserves in the Kalgoorlie area are more than 34 million tonnes, averaging 2.8 per cent nickel. Other large but low-grade ore bodies have been found between Leonora and Wiluna; the largest of these is Mount Keith where ore reserves are estimated to be 330 million tonnes averaging 0.6 per cent nickel. In the Leonora—Wiluna area at Agnew the ore body is estimated to contain at least 40 million tonnes of ore averaging 2.2 per cent nickel.

A nickel refinery has been built at Kwinana, Western Australia, with an annual capacity of 15,000 tonnes which has now been expanded to 20,000 tonnes. A smelter built at Kalgoorlie with an annual capacity of 200,000 tonnes of nickel concentrate commenced operation in 1973. Use of bulk oxygen in the smelter is expected to increase throughput by 75 per cent.

Production from lateritic nickel deposits at Greenvale in Queensland is expected to commence in early 1975. The ore will be refined near Townsville. Other large, but at present uneconomic, deposits of this type are known at Wingellina, near the border of South Australia and Western Australia, at the Ora Banda district north-west of Kalgoorlie and at Marlborough in Queensland.

Phosphate. Major deposits of phosphate rock are known in north-west Queensland and in the Northern Territory with reserves exceeding 3,000 million tonnes. Production from the north-west Queensland deposits is now scheduled for 1975.

Tin. The main deposits of tin now being exploited are in the Herberton field inland from Cairns, Queensland; north-west and north-east Tasmania; in the Pilbara region and in the south-west of

Western Australia; and at Ardliehan and in the New England area, in New South Wales. As the result of exploration and expansion of known deposits in recent years, Australia is now a net exporter of this metal.

Tungsten. The main deposits of tungsten ores are in north-eastern Tasmania (wolfram) and on King Island (scheelite). Australia's own requirements are small, and production is principally for export. Australian production of tungsten concentrates could be doubled by the mid-1970s when the planned increases in production at King Island take effect. The Storeys Creek wolfram mine recommenced production in 1973 following an increase in the price of tungsten.

Uranium. Exploration and development work continued in the Alligator Rivers uranium province in the Northern Territory. The discovery of a new deposit, Jabiluka 2, was announced early in 1973, and substantial additions were made to reserves at the Ranger deposit as a result of further diamond drilling. Preliminary estimates suggest that at least 150,000 tonnes of uranium oxide will be proven in the four major deposits at Nabarlek, Koongarra, Ranger and Jabiluka.

Other important deposits have been outlined at Yeelirrie, Western Australia (46,000 tonnes uranium oxide) and at the Beverley deposit (15,900 tonnes uranium oxide) in the Lake Frome region, South Australia. At Mary Kathleen, Queensland, recoverable reserves have been estimated at almost 7,300 tonnes uranium oxide; no plans for reopening have as yet been finalised but it is estimated that recommissioning of plant, which has been on a care and maintenance basis for 10 years, will take 18 months.

There has been no production of uranium oxide since 1971 in Australia.

Administration

All mineral rights in Australia are vested in the Crown except on land which was granted before the Crown began to reserve mineral rights. In practice these private mineral rights are important only in the New South Wales coalfields. In the States, rights are held by the State Governments and in the Territories of the Commonwealth these rights are vested in the Australian Government. The Australian Government is able also to influence over-all development and production activity in the mineral industry by virtue of its statutory powers with respect to international trade, customs and excise, taxation, and loan raisings. Certain specially formed bodies such as the Joint Coal Board and the Australian Atomic Energy Commission have been given administrative responsibility in defined areas.

Control of mining

Each State or Territory has its own mining Acts or Ordinances and regulations governing the prospecting for and working of mineral deposits. Before the commencement of the Acts mentioned in the next paragraph these Acts, etc., were similar in principle, but different in detail. They all made provision for miner's rights to prospect and for small mining leases for mineral production. The principles embodied in these Acts, etc., were established many years ago when mining operations were generally small scale and labour-intensive. Although amendments had been enacted to modernise the legislation, it was generally inadequate for the large scale capital-intensive operations often involved with modern mineral development. For this reason a large enterprise may take the course of acquiring mining titles by negotiation with the appropriate Minister for Mines and having the agreed terms and conditions embodied in an Act of the State Parliament. This method of acquisition has been used in several cases where the leasing company undertook an obligation (such as the erection of a large treatment works) in return for leases over large areas for a long period, and has become more common in recent years (e.g. iron ore in Western Australia, coal and bauxite in Queensland, bauxite in the Northern Territory).

Two States have brought into operation new mining acts, i.e. *The Queensland Mining Act of 1968 to 1971* which commenced on 1 January 1972 and *The South Australian Mining Act, 1971* which commenced on 3 July 1972. These Acts are simpler and more suited to modern conditions than the mining acts which they replaced. Western Australia and New South Wales introduced Bills for new mining acts into their respective Parliaments in 1972. The New South Wales Act was passed in 1973 but had not become operative at the end of that year. The Western Australian Act lapsed at the dissolution of the Western Australian Parliament.

AREAS OCCUPIED UNDER MINING ACTS AND ORDINANCES(a)

('000 hectares)

Year (31 December)	N.S.W.(b)	Vic.	Qld(c)	S.A.(b)	W.A.	Tas.	N.T.(b)	Total
1969 . . .	565	246	1,055	39	595	22	38	2,560
1970 . . .	605	931	1,444	49	2,231	24	39	5,323
1971 . . .	464	498	1,589	53	3,165	25	41	5,835
1972 . . .	656	133	1,405	59	1,721	26	48	4,048
1973 . . .	(d)1,115	25	1,258	98	1,850	36	51	4,433

(a) Excludes areas held under special arrangements; see following text. (b) At 30 June. (c) Excludes lands held under miners' rights and dredging claims. (d) Figures not comparable with previous years; includes some new coal titles, as defined by the *Coal Mining Act 1973*.

Control of exploration

This section refers in general to the exploration for all types of mineral deposits in Australia. Additional information relating to the search for petroleum is set out in the following section.

As a result of the introduction of large-scale modern prospecting methods (particularly air-borne prospecting), the small prospecting areas referred to in the previous section were found to be unsuitable in some instances, and steps have been taken in the States and Territories to ensure the availability of large areas for prospecting by interested persons. Large areas may be made available by provision within the Mining Acts or Ordinances for the issue of authorities to prospect over an area defined by a written agreement which also sets out provisions as to the amount of money to be spent, methods of prospecting, tenure of the agreement, etc.

The tenure of such areas is limited, usually to one or two years only, and, if renewed for a further period, is only over an area selected from the larger area as a result of work done during the life of the initial agreement. It does not give the holder any rights over, or authorities to prospect on, land already held under a mining title within the agreed area. Unless specifically stated in an agreement, the discovery of minerals, whether inside or outside an area covered by an authority to prospect, gives the discoverer no legal rights except the right to apply for a mining lease over the area in which the discovery was made. Suitable prospects are converted to mining tenements by making application for lease under the appropriate mining Act.

Control of petroleum exploration

On-shore. In Australia all petroleum is the property of the Crown. Consequently, full control of petroleum mining rights is vested in the Government or Administration of each State or Territory. Any company, organisation or individual proposing to undertake petroleum exploration or development must first satisfy the Government concerned that the necessary financial and technological resources are available to carry out the operation.

There are three main types of petroleum titles:

- (a) the permit, covering initial geological, geophysical and exploration drilling;
- (b) the licence (in Victoria only), which covers detailed surveys and drilling; and
- (c) the lease, which covers development operations and production.

Further details of the petroleum legislation are given in Year Book No. 55, pages 996-7. The States of Western Australia and South Australia recently issued some revisions to their on-shore legislation, for details of which direct reference should be made to the State concerned.

Off-shore. The *Petroleum (Submerged Lands) Act 1967-1973* is the instrument whereby the control and safeguarding of the exploration and exploitation of petroleum resources on the territorial sea-bed and on the continental shelf are assured. Complementary legislation has been passed by each State Government and by the Australian Government.

The legislation provides for a two-stage system of titles: the exploration permit, which covers all forms of exploration including drilling, and the production licence, which covers development and exploration. Royalty is generally shared between State and Australian Governments on a 60 : 40 basis; however, overriding royalty is payable to the State under certain conditions. Mineral royalty receipts of governments under these Acts are included in the table on page 938.

The table following shows details of areas occupied under both on-shore and off-shore petroleum exploration and development titles at 31 December 1970, 1971, 1972 and 1973.

AREAS OCCUPIED UNDER PETROLEUM EXPLORATION AND DEVELOPMENT TITLES

Year (31 December)	N.S.W.	Vic.	Qld	S.A.(a)	W.A.	Tas.	N.T.(a)	Total
ON-SHORE AREAS (square kilometres)								
1970 . . .	227,624	65,547	1,037,292	604,830	n.a.(b)	1,655	159,981	n.a.
1971 . . .	196,145	47,892	885,596	569,710	n.a.(b)	596	149,530	n.a.
1972 . . .	86,728	51,442	1,296,085	567,187	n.a.(b)	..	149,530	n.a.
1973 . . .	158,164	34,582	695,838	599,293	n.a.(b)	16	163,504	n.a.
OFF-SHORE AREAS (5 minute blocks) (c)								
1970 . . .	643	1,189	2,918	3,425	8,808	2,314	3,626	22,923
1971 . . .	782	1,178	2,918	3,089	8,727	1,703	3,534	21,931
1972 . . .	503	1,178	2,918	3,089	10,171	1,498	3,535	22,892
1973 . . .	433	1,178	2,918	3,089	9,828	1,498	4,283	23,227

(a) At 30 June. (b) Available only in terms of 5 minute blocks of which there were 6,510 at 31 December 1971, 8,036 at 31 December 1972 and 7,260 at 31 December 1973. (c) Area bounded by 5 minutes of latitude and 5 minutes of longitude; figures include partial blocks.

Mineral royalties

The collection by governments of royalties for the production of minerals within their area of authority is an internationally accepted practice. In Australia the responsibility for mineral royalties is largely a State concern, and all States currently collect some form of mineral royalty payments. In the past most States have relied on an established system of standard rates which were uniform for all producers of any particular mineral in the State concerned. These charges were either a fixed monetary amount per tonne (e.g. 5c per tonne on gypsum mined in New South Wales) or an *ad valorem* royalty (e.g. 1.5 per cent of gross value of gold produced in New South Wales).

In recent years there has been an important basic change in the system of establishing royalty commitments, and it is now quite common for State Governments to negotiate special royalty rates with companies which are seeking mineral leases for large scale developments. These royalty rates may vary, depending on whether production is for export or for domestic processing. The rates for a particular mineral may also vary between producers. Important examples of this type of royalty agreement are the iron ore development agreements in Western Australia and coal development agreements in Queensland. Mineral royalties received by Governments in recent years are shown in the table below.

MINERAL ROYALTY RECEIPTS: GOVERNMENTS
(\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
New South Wales(a)	9,795	13,558	17,819	10,237	9,592
Victoria(b)	687	2,736	12,239	16,875	18,026
Queensland(a)	1,688	3,039	5,483	3,805	3,525
South Australia	1,254	1,557	1,798	1,821	1,807
Western Australia	11,001	15,700	22,347	25,247	27,266
Tasmania(c)	251	424	410	489	498
Northern Territory	283	449	431	634	910
Australian Government(d)	11	492	5,024	7,567	7,896
Total	24,971	37,953	65,552	66,676	69,521

(a) Includes royalty on sand and gravel from Crown lands. (b) Includes royalty on brown coal paid by State Electricity Commission and royalties received under the *Petroleum (Submerged Lands) (Royalty) Act 1967*. (c) Includes rent and fees from mineral lands and royalties on iron ore. (d) Includes royalties received under the *Petroleum (Submerged Lands) (Royalty) Act 1967*.

Control of Exports

The Australian Government maintains export controls over certain metals, petroleum and petroleum products and all raw and semi-processed minerals. These controls are administered under the authority of the Customs (Prohibited Exports) Regulations as amended from time to time by Statutory Rules. The authorities having jurisdiction over such exports are set out below together with listings of the goods subject to control. A clearance to export is needed in each case.

Minister for Minerals and Energy—An amendment to the Customs (Prohibited Exports) Regulations on 22 February 1973 (Statutory Rule No. 39 of 1973), and further amended by Statutory Rules 1973/248 and 1974/46, provides that the exportation from Australia of the following goods is prohibited unless approval in writing is issued by the Minister for Minerals and Energy or by an authorized person.

- (a) ores containing copper or tin, whether or not they have been subjected to processing or treatment; mineral or metallic substances produced in the course of processing or treatment of those ores; copper anodes, copper cathodes; copper ingots, copper rods, copper scrap and copper refinery shapes in the form of ingots, wire bars, billets, cakes, rolling blocks or ingot bars; copper alloys in the form of ingots, billets, cakes, rolling blocks or ingot bars and copper alloy scrap; goods consisting wholly or principally of copper, or copper alloy, or both copper and copper alloy, whether refined or not; goods containing copper, or copper alloy or both copper and copper alloy, whether refined or not, if the value of the copper or copper alloy or the value of the copper and the copper alloy in the goods is greater than the value of the other substances constituting the goods; substances (being residues, speiss, slag, dross, scale, sweepings, ash, sludge, slime, dust and wastes) produced in the course of the processing and treatment of copper and copper alloys; copper sulphate; copper oxide; refined tin in the form of ingots or in any other refinery form;
- (b) alumina;
- (c) petroleum and petroleum products;
- (d) all other minerals including those other minerals that have been subjected to processing or treatment; substances produced in the course of processing or treatment of those other minerals but not including refined products obtained by or from processing or treatment of those other minerals and goods into which products, whether refined or not, obtained by or from processing or treatment of those other minerals have been converted.

In addition, the export of metals and minerals of atomic energy significance are also controlled, viz.: minerals containing uranium and thorium, uranium, thorium, beryllium and lithium metals, compounds and alloys; hafnium-free zirconium metal, alloys and compounds, nickel metal in certain forms.

Department of Agriculture—phosphate rock, phosphate and superphosphate, and fertilisers containing phosphate or superphosphate.

Joint Coal Board

The Joint Coal Board was established in 1946 under joint legislation of the Australian Government and of the State of New South Wales to carry out special administrative functions in regard to the New South Wales black coal mining industry. A summary of these functions is given below.

- (i) To ensure that coal is produced in the State of New South Wales in such quantities and with such regularity as will meet requirements throughout Australia and in trade with other countries;
- (ii) to ensure that the coal resources of the State are conserved, developed, worked and used to the best advantage in the public interest;
- (iii) to ensure that coal produced in the State is distributed and used in such manner, quantities, classes and grades, and at such prices as are calculated best to serve the public interest and secure the economical use of coal and the maintenance of essential services and industrial activities; and
- (iv) to promote the welfare of workers engaged in the coal industry in the State.

Queensland Coal Board

The Queensland Coal Board carries out research and sampling tests of Queensland coals. It also makes funds available to colliery proprietors for equipment and makes grants and/or loans for the provision of amenities for employees and for communities in coal mining districts.

Australian Atomic Energy Commission

During 1953, legislation was enacted to set up an Atomic Energy Commission which is responsible, in an overall sense, for the production and utilisation of uranium in Australia. This Act, the *Atomic Energy Act 1953*, superseded the *Atomic Energy (Control of Materials) Act 1946*, but retains a provision of that Act which provides for the control of substances which could be used for production or use of atomic energy.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters. Secondly it is authorised to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research and generally fostering the advancement of atomic energy technology. The Commission operates under the direction of the Minister for Minerals and Energy.

Government assistance

The Australian Government and the various State Governments provide assistance to the mineral industry in a variety of ways. The main forms of assistance are discussed below.

Australian Government assistance

Assistance provided by the Australian Government takes the form of income taxation concessions, subsidies, bounties, and technical assistance mainly through the work of the Bureau of Mineral Resources and the Commonwealth Scientific and Industrial Research Organization. A table showing direct Australian Government payments to sectors of the mineral industry is included on page 942.

Income taxation concessions. One-fifth of the net income derived from mining for prescribed minerals in Australia or Papua New Guinea is exempt from tax. Principal minerals to which this concession applies are as follows: asbestos, bauxite, radio-active ores, rutile and zircon; and ores of copper, nickel and tin.

Income derived from mining principally for gold in Australia or Papua New Guinea is exempt from tax. The exemption is also available in respect of income derived from mining principally for gold and copper if the value of the gold obtained is not less than 40 per cent of the value of the total output.

Special deductions for capital expenditure incurred in the discovery and mining of petroleum are allowable to a company deriving income from the sale of petroleum, and products of that petroleum, mined by the company in Australia or Papua New Guinea. A company is entitled to these deductions only when it produces Australian petroleum in commercial quantities. The general effect of the deductions is to free the proceeds from the sale of Australian or Papua New Guinean petroleum and its products from tax until all allowable capital expenditure has been fully recouped.

Capital expenditure allowable to petroleum exploration companies includes, broadly, the cost of exploratory surveys, drilling and well-head plant, access roads and expenditure on housing and welfare.

A company mining or prospecting for minerals other than petroleum and gold may also be allowed special deductions for capital expenditure. Broadly, allowable capital expenditure includes expenditure on exploration and prospecting, preparation of a site for extractive mining operations, buildings, other improvements and plant necessary for those operations, access roads, certain treatment plant and housing and welfare.

The allowable capital expenditure of a general mining company may be deducted over the life of the mine, or twenty-five years, whichever is the lesser. Alternatively, the mine owner may elect to have the allowable capital expenditure deducted in the year it is incurred or, where appropriations have been made for such expenditure to be incurred in the following year, the deduction may be allowed in the year of the appropriation. Annual deductions for depreciation on mining plant may be allowed in lieu of spreading the cost over the life of the mine. Expenditure on housing and welfare may, at the option of the mine owner, be allowed over the life of the mine, or five years.

Special deductions are allowable for capital expenditure incurred on certain transport facilities used primarily and principally in relation to minerals mined in Australia, for the transport of raw minerals and certain specified products obtained from the processing of such minerals, or for transporting petroleum between the oil or gas field and a refinery or other terminal. The special deduction applies to expenditure incurred on a railway, road, pipe-line or similar transport facility. Allowable expenditure on transport facilities is deductible in equal annual instalments over a period of ten years.

Petroleum search subsidy. The petroleum search subsidy scheme, introduced in 1957, was terminated on 30 June 1974. During the years that the scheme was in operation, various amendments to the Act and Regulations altered the rates of subsidy and the types of operations to which subsidies were applicable. The last amendment to the Act, introduced in 1969, extended the duration of the Act

to 30 June 1974, and restricted the general availability of subsidy to onshore areas; operations in offshore areas were only subsidised if there was an Australian financial interest in the operation and the rate of subsidy approved had regard to the extent of that interest. In March 1972, the subsidy for approved onshore geophysical operations was increased to 50 per cent of acceptable costs of the operation. For all other approved operations the maximum subsidy was 30 per cent of acceptable costs. Details of amendments to the Petroleum Search Subsidy Act are given on page 1001 of Year Book No. 55. Subsidy payments made under the Act for the years 1969 to 1973 are shown in the table on page 942.

Pricing of Australian crude oil. Early in 1965 the Tariff Board conducted a public inquiry to determine an appropriate price for Australian crude oil, having regard to the Australian Government's desire to encourage the search for oil and the consequent need to offer sufficient incentive to exploration companies. At the same time the Government indicated that it was anxious to prevent or minimise increased costs of petroleum products to consumers and to ensure that refineries using Australian crude oil were not detrimentally affected in relation to other refineries. Evidence was heard from oil exploration, marketing and refining interests, government officials, coal and power interests, and major users of refined petroleum products. The Tariff Board recommended at that time that Moonie crude oil should be valued at \$2.69 a barrel at the nearest refinery centre, which included a variable differential related to the quality of the oil and an incentive of 22.4 cents per barrel. The Government adopted the Tariff Board's recommendations, and raised the incentive margin to 67 Australian cents a barrel; this margin applied to all Australian crude oil producers.

To ensure that indigenous crude oil is used to the maximum extent in Australian refineries, the Government also adopted the Tariff Board's recommendation to impose penal import duties of 0.8 cents a gallon on crude oil and 2.4 cents a gallon on motor spirit to be paid by the companies which do not take their share of local crude oil. The share of local crude to be taken was based on the importer's share of total imports of refinery feedstock or refined products or both.

Under these arrangements the price of Moonie crude was \$3.14 a barrel delivered Brisbane; and Barrow Island field when it commenced production in April 1967 was \$3.24 a barrel delivered Kwinana. This pricing structure was to remain operative until 17 September 1970.

However, the discovery of very large crude oil reserves in the Gippsland Shelf fields revealed that this pricing structure could result in the Australian consumer paying more for indigenous petroleum products than for similar products refined from imported crude oils. Following negotiations with the Australian Government the Gippsland Shelf operators agreed to forgo the \$0.67 a barrel incentive, plus a further \$0.05 per barrel. This applies from commencement of production in October 1969 to 17 September 1970. As from 18 September 1970, the price of all Australian crude oils has been based on 'import parity' as at 10 October 1968, the date on which the new arrangements were announced by the Prime Minister in Parliament. This pricing structure is for a 5 year period from 18 October 1970.

Under this agreement the Gippsland crude oil is priced in the following manner:

	<i>per barrel</i>
	\$
Weighted average posted price as at 10 October 1968 of principal crudes imported into Australia	1.62
less weighted average discounts as at 10 October 1968	0.26
	<hr/> 1.36
plus weighted average overseas freights as at 10 October 1968	0.46
Wharfage and other charges as at 10 October 1968	0.07
	<hr/> 1.89
less a deduction for coastal freight	0.09
	<hr/> 1.80

To this the quality differential of approximately \$0.26 per barrel is added. The quality differential varies according to changes which occur in the quality of the oil produced.

Moonie crude oil on the same basis, for the five-year period is \$2.15 per barrel f.o.b. Brisbane, since the coastal freight deduction of 9 cents per barrel does not apply.

Barrow Island crude is the basic \$1.89 per barrel plus a quality differential of 34 cents, giving the total of \$2.23 per barrel f.o.b. Kwinana.

The Government has announced that the absorption of Australian crude oil by Australian refineries will be Government policy until September 1980. The allocations to refining and marketing

companies are now based on the sales volume of certain products, and the associated penal duties on imports made by companies not taking up their allocations have been increased to 7.5 cents per gallon on motor spirit, 5 cents per gallon on other refined products and 2 cents per gallon on crude oil.

The Government has also announced that, should the production of Australian crude oil exceed the capacity of the refiners to absorb indigenous crude, the available market will be shared between all producing companies on a formula based on the reserves of each company. Export of the excess crude oil will be permitted.

Assistance to the gold-mining industry. Assistance to the gold-mining industry by subsidy was introduced at a time of rising costs in the industry and fixed official world price for gold. Because many producers were faced with the likelihood of closing down, the Government decided to subsidise marginal producers in Australia and Papua New Guinea. Under the *Gold-Mining Industry Assistance Act 1954* a producer, the value of whose gold output exceeded 50 per cent of the total value of his mine output, was eligible for assistance, subject to certain conditions, on the production of gold from 1 July 1954. The assistance scheme has been reviewed on a number of occasions since the Act was originally passed, and some liberalisations have been approved, including increases in the rates of subsidy payable authorised in amendments passed in 1957, 1959, 1965 and 1972.

Under the Act in 1973 the subsidy payable to small producers whose annual deliveries did not exceed 500 fine oz was \$6 per fine oz, irrespective of cost of production. For large producers, subject to certain provisions, the rate of subsidy payable was an amount equal to three-quarters of the excess of the average cost of production over \$27 per fine oz, with a maximum amount of subsidy of \$12 per fine oz. A producer whose deliveries during the year exceeded 500 fine oz could elect to be treated as a small producer. In this case the subsidy rate payable per fine oz on total deliveries was \$6 reduced by 1c for each fine oz by which deliveries exceeded 500 fine oz. The benefit under this provision terminates when deliveries in a year reach 1,100 fine oz. Where a producer received an amount in excess of \$31.25 per fine oz on market sales of gold, the subsidy payable was, with effect from 1 January 1972, reduced by fifty per cent of the amount of the excess. Increases in the market price of gold since 1972 have resulted in a reduction in subsidy payments to producers in 1973 compared with previous years.

Payments under the Act will apply to production until 30 June 1975. The amounts paid to gold producers in recent years are shown in the table below.

Assistance to the producers of sulphuric acid and iron pyrites. The *Sulphuric Acid Bounty Act 1954-1971* and the *Pyrites Bounty Act 1960-1971* expired on 31 May 1972. The Acts provided for payment of bounty on sulphuric acid produced from prescribed Australian materials, and to producers of iron pyrites. Payments under these Acts for recent years are shown in the table below.

Payments to producers of phosphate fertilisers. The *Phosphate Fertilisers Bounty Act 1963-1971* provides for a bounty to be paid on superphosphate and ammonium phosphate manufactured and used in Australia as a fertiliser. (This includes approved trace elements, compounds or substances when added to superphosphate). Bounty is payable on the soluble content of phosphorus pentoxide. A standard grade of superphosphate containing between 19.5 and 20.5 per cent soluble content of phosphorus pentoxide qualifies for full bounty of \$11.81 per tonne. Outside this range, bounty is payable at \$59.05 per tonne of contained phosphorus pentoxide. The intention of this Act is to assist consumers of phosphate fertilisers (primary producers). The Act is due to expire on 31 December 1974. Payments under the Act, are set out in the following table.

**AUSTRALIAN GOVERNMENT PAYMENTS TO THE MINERAL INDUSTRY
AND TO THE MANUFACTURING INDUSTRY FOR PRODUCTS OF MINERAL
ORIGIN; AUSTRALIA**
(\$'000)

Year	Petroleum exploration (a)	Gold mining(b)	Pyrites mining(c)	Sulphuric acid production (d)	Phosphate fertiliser production (e)
1969 . . .	14,911	1,077	..	988	31,665
1970 . . .	11,237	3,278	90	740	45,820
1971 . . .	8,468	2,162	568	489	40,815
1972 . . .	8,422	1,185	962	527	49,137
1973 . . .	9,611	49	..	..	66,962

(a) *Petroleum Search Subsidy Act 1959-69.* Includes payments in Papua New Guinea; see also the table on page 973. (b) *Gold-Mining Industry Assistance Act 1954-72.* Includes payments in Papua New Guinea. (c) *Pyrites Bounty Act 1960-1971.* This Act expired on 31 May 1972. (d) *Sulphuric Acid Bounty Act 1954-1971.* This Act expired on 31 May 1972. (e) *Phosphate Fertilisers Bounty Act 1963-1971.*

Bureau of Mineral Resources, Geology and Geophysics. The functions of BMR are as follows:

- (i) as a primary function, to obtain, study, publish and provide basic geological and geophysical information necessary for the exploration and development of the nation's mineral resources; this to be done where appropriate in co-operation with State and Territorial authorities;
- (ii) to undertake experimental studies and research into geology and geophysics in order to support the function of obtaining basic information;
- (iii) to make basic investigations of the earth's magnetic and gravitational fields and in seismology and vulcanology;
- (iv) to complement the work of the State and Territorial authorities by undertaking geological and geophysical investigations into the occurrence and distribution of underground water;
- (v) to undertake geological and geophysical investigations on behalf of other Australian Government Departments and authorities including the provision of resident staff by arrangement with the Territories;
- (vi) to obtain basic information on, and review the mineral resources of Australia and its Territories; to study the various sectors of the mineral industry both in the national and international spheres; to publish and provide information about the mineral industry;
- (vii) to undertake such investigations in mining engineering and petroleum technology as are relevant to (i) and (vi) above;
- (viii) to prepare advice for Government on the mineral industry, including the exploration and development of mineral resources in the national interest;
- (ix) when directed by Government, to administer schemes for the assistance of sectors of the mineral industry and to undertake special mineral projects.

BMR comprises five branches under the Director: Operations, Mineral Resources, Geological, Geophysical, and Petroleum Exploration. The Operations Branch consists of four sections, Planning and Co-ordination, Publications and Information, Automatic Data Processing Applications and Administrative. It carries out central office functions, including planning and control of program, assessment of results, co-ordination of activities, liaison, distribution of information and provision of ADP services. The Mineral Resources Branch comprises the sections Mineral Economics, Mining Engineering, and Petroleum Technology, and is concerned largely with those aspects of BMR's work which involve studies of the mineral industry as a whole, and the preparation of advice and reviews for the Government, industry and the public. The Geological and Geophysical Branches are responsible for the principal field activities of BMR, and the operation of observatories, while the Petroleum Exploration Branch is concerned with the administration of the *Petroleum Search Subsidy Act 1959-1969* and the assessment of sedimentary basins in Australia and its Territories. The establishment of BMR is 672 officers (at 31 July 1974) and includes 262 professional officers (geologists, geophysicists, chemists, engineers and mineral economists). The budget for the financial year 1973-74 was \$20.31 million of which \$10 million was for payment under the *Petroleum Search Subsidy Act 1959-1969*.

BMR maintains laboratories in Canberra and Darwin which are engaged on geochemical, geochronological and petroleum technological studies and basic research into the design and testing of geophysical equipment. It also maintains geophysical observatories at Toolangi, Mundaring, Port Moresby, Mawson (Antarctica), and Macquarie Island. The geophysical observatories are engaged in magnetic, ionospheric, and seismic investigations and are base stations for field operations.

State Government assistance

In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Departments of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

New South Wales. The State Mines Department renders scientific, technical and financial assistance to the mining industry. Grants are made to cover up to half the cost of prospecting and drilling operations. These grants are repayable if sufficient pay minerals are discovered or if certain other conditions are met. Loans at low interest rates may be made to prospectors and miners for the purchase of plant and machinery. A quantity of equipment is also available for hire in several localities. The Department has itself undertaken a program of contract drilling to investigate the existence of mineral deposits in the State (including the testing and proving of coal resources). Expenditure on financial assistance in 1972-73 amounted to \$537,766 including \$298,795 on the Department's own drilling program.

Victoria. The Mines Department conducts geological and mineral surveys and produces geological maps and issues scientific and technical reports thereon. Extensive rotary, percussion and auger drilling operations are carried out and in conjunction with these, sedimentary basin studies are made to evaluate petroleum, mineral and groundwater potential. A comprehensive library and a geological museum are maintained and a core library retains cores and cuttings from drilling operations. The administration of petroleum and pipeline legislation ensures the conduct of all petroleum exploration and production operations by private operators, onshore and offshore, in a safe and effective manner. Technical and drilling assistance and loans or grants are available for mineral exploration and prospecting and for approved development operations. Six stamp batteries provide an ore crushing service to enable test crushings to be made at nominal cost. Information is available on mining law and mineral statistics. Assays of ores, analytical services, advice on metallurgical treatments, industrial pollution and chemical problems are available together with information on the manufacture, handling and use of explosives and inflammable liquids. Financial assistance is available to municipalities to reclaim mine-damaged land, in areas where a Reclamation Committee recommends such action.

Queensland. The Department of Mines provides assistance to mining by way of geological services, grants for construction and maintenance of roads in mining areas, repayable advances or subsidies for mine development, hiring of equipment, and assistance to prospectors. The Department maintains a concentration plant for tin ores at Irvinebank, an assay office at Cloncurry, a battery for treatment of gold-bearing ores at Charters Towers, and diamond drilling plants in various parts of the State.

South Australia. The Department of Mines provides the following services and facilities to the mineral industry: (i) drilling and testing of mineral deposits, geophysical investigations, well logging development of sub-surface water supplies for farming, pastoral, irrigation, and mining purposes; (ii) geological examination of mineral deposits, ground water supplies, dam foundation and drainage problems, and publication and issue of geological bulletins and maps. It also provides, through the Australian Mineral Development Laboratories, facilities for chemical, metallurgical, analytical and assay investigations, testing and treatment of ores and minerals, and petrographic, mineragraphic and radiometric determinations. Pilot scale metallurgical and chemical treatment plants are maintained and operated for the development of mineral extraction processes.

Western Australia. Prospectors receive assistance of either \$15 or \$17.50 a week according to the prospecting locality. North of the 26th parallel and within a defined area south of this, lying largely outside the agricultural areas, assistance is given to the extent of \$17.50 a week. In the remainder of the State prospectors receive \$15 a week. Provision is also made for the supply of some tools required for prospecting. There are sixteen State batteries operating intermittently throughout the goldfields for the treatment of ore from prospectors and small mine-owners at a nominal charge. A cartage subsidy is also granted to such operators sending gold and lead ores to State batteries for treatment. Provision is made for loans to mine-owners who require assistance to develop mines.

Tasmania. The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery, for sinking, repairing or de-watering of shafts, for construction of dams and water races, for testing and proving a deposit of any mining product, for developmental work, and for diamond and other types of drilling. The Department has available for hire, percussion and diamond drills for exploration, as well as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry in the form of geological and engineering advice, through ore-dressing research into metallurgical recoveries, and the selection and design of treatment plant.

Northern Territory. To encourage the development of the mining industry the Department of the Northern Territory operates two batteries for the treatment of ores for miners. The Tennant Creek battery will continue cyaniding the gold in accumulated tailings and is available for crushing. The Mount Wells battery is crushing mainly parcels of tin ores. Small quantities of ore containing gold, silver, lead, copper and wolfram are also crushed from time to time. The crushing charges are subsidised by the Government. In addition the Department of the Northern Territory provides cartage subsidies and financial advances to encourage miners to carry out mining operations. Assistance is also given to the mining industry by drilling encouraging prospects. Roads and water supply services are provided and maintained for mines under active development throughout the Northern Territory.

Research

Research investigations into problems of mining, ore-search, ore-dressing and metallurgy are conducted by Government bodies, by universities, by private enterprise, and by combined efforts of these bodies. A summary of their functions follows. (For further information on research see Chapter 28 Science and Technology).

Australian Atomic Energy Commission

The Australian Atomic Energy Commission conducts research at its laboratories at Lucas Heights in Sydney on the development of nuclear power, including research on nuclear materials and on metals and ceramics used for nuclear power.

The Australian Mineral Development Laboratories

Contract research and technical consulting for the mineral and associated industries is undertaken by The Australian Mineral Development Laboratories (Amdel), at Adelaide. This organisation is controlled by a council comprising representatives of the mineral industry, the South Australian Government and the Australian Government. Extensive facilities are available in the fields of analytical chemistry, mineralogy and petrology, chemical metallurgy and mineral engineering, operations research/computer services and materials technology. Both long and short term applied research is carried out and all investigations are conducted on a strictly confidential basis. Services in the field of pollution and environmental control are also available through the Amdel group Amdel (Aspect).

The Baas Becking Geobiological Research Laboratory

In 1965 the Baas Becking Geobiological Research Laboratory was established in the Bureau of Mineral Resources Building in Canberra, under the joint sponsorship of the Commonwealth Scientific and Industrial Research Organization, the Bureau of Mineral Resources, and the Australian Mineral Industries Research Association (*see* Research by private enterprise, page 946). The broad objective of the research work is to investigate the biological and chemical processes associated with the formation of mineral deposits of the stratiform type.

Emphasis is placed on investigations to establish the relationship of biological factors to the natural physico-chemical environment with particular reference to the possible role of these factors in the formation and transformation of sulphide minerals. Investigations have included the response of micro-organisms to heavy metals; biochemistry and physiology of oxidative and reductive sulphur transformations; role of organisms in the concentration of mineral elements; physico-chemistry of low-temperature mineral synthesis; and mobility of sulphides under the influence of temperature and pressure and the interaction of mineral types.

Bureau of Mineral Resources, Geology and Geophysics

The Bureau of Mineral Resources is the largest geoscience research organisation in Australia. Its work is directed towards an integrated study of the origin, composition and structure of the rocks forming the Australian continent—to the lower limits of the continental slope—particularly as these affect the genesis and distribution of mineral deposits. The main effort is in field research supported and complemented by laboratory and office studies. BMR's activities include:

Geological, geophysical, and geochemical surveys to provide the basic information for further studies.

Compilation, review, and synthesis of information on and detailed investigations of sedimentary basins and metallogenic provinces, leading to an understanding of their origin and history, and to assessment of their prospectiveness.

Studies of specific commodities, including research into the occurrence and origin of their deposits, assessment of potential for new discoveries, resource inventories, and market trends.

Engineering geology, urban geology and hydrogeological investigations.

Maintenance of seismological and magnetic observatories, and related studies.

Assessment of geophysical techniques in Australian conditions, and development of new techniques and equipment.

Fundamental geoscience research, with an orientation to the activities listed above.

Provision and dissemination of the results of BMR's work and information on the geosciences generally.

For details of the functions of the Bureau of Mineral Resources, Geology and Geophysics, *see* page 943.

Commonwealth Scientific and Industrial Research Organization

Mineral research by the Commonwealth Scientific and Industrial Research Organization is undertaken mainly in the Minerals Research Laboratories comprising the Divisions of Mineral Chemistry, Chemical Engineering, Mineralogy, and Mineral Physics. Major laboratories are located at Clayton (Vic.), Port Melbourne, Sydney and Perth. Current research program objectives and sub-program titles are:

(a) *Exploration methods.* To improve and develop procedures for locating mineral deposits (geochemical techniques, geophysical techniques, geological pattern recognition).

- (b) *Mineralisation.* To improve methods of recognising and defining the nature and economic significance of specific types of mineralisation (coal and petroleum, nickel deposits, other deposits, hydrogeochemistry, ore-forming fluids, geobiology, mineralogical techniques).
- (c) *Mining and concentration.* To identify, and utilise in practice, those properties of minerals and rocks that will increase the overall efficiency of their mining, concentration and handling (rock properties, mineral dressing, transport and fill, iron ores).
- (d) *Process metallurgy and engineering.* To initiate or improve methods for the scientific development of Australia's natural resources (new products and processes, process control, process improvement and evaluation, structures and bonding, hydrometallurgy).
- (e) *Environment.* To protect and improve the quality of the human and natural environment by applying the skills and expertise available in the Minerals Research Laboratories (air pollution, solid and liquid wastes, treatment of mineral sulphides, reactive carbons).

The minerals industry provides strong support in the form of co-operative research planning, collaborative investigation of specific projects, and financial grants for appropriate developmental work.

National Coal Research Advisory Committee

The National Coal Research Advisory Committee was established in December 1964, following agreement between the Australian Government, State Governments and private industry, for increased applied research in Australia into coal utilisation. This was later extended to cover research into coal winning and beneficiation. Initially a pool of funds amounting to \$520,000 per annum was jointly contributed for the sponsorship of this research. These funds were allocated on the advice of the Committee, whose membership was representative of the contributing groups. This agreement was terminated on 30 June 1969, and a new National Coal Research Advisory Committee was nominated by the Australian Government alone. A sum of up to \$260,000 per year for up to three years was set aside by the Government for allocation on the advice of this Committee.

As from 30 June 1972, the scheme of assistance to coal research was extended for a further five years, with yearly allocations of \$260,000. The major beneficiary under this scheme is the Australian Coal Industry Research Laboratories; other beneficiaries are University Departments.

The functions of the Committee are:

- (a) To keep under review all coal research carried on throughout Australia and overseas, in relation to conservation, winning, beneficiation and utilisation.
- (b) To reach conclusions on scientific, technical and economic grounds as to the directions in which this research in Australia should be strengthened.
- (c) To review annually all relevant research programs in Australia, and to recommend to the Minister for Minerals and Energy those programs that should be supported, and the amount of financial contributions which should be made to each of them from the funds provided.

University Research

The various universities in Australia carry out research into various aspects of the mineral industry such as geology, ore mineralogy and genesis, mining techniques, mineral processing, extractive metallurgy, and materials and metals technology.

Research by private enterprise

Most large mining and smelting companies have laboratories dealing with their own individual problems. Private industry formed the Australian Mineral Industries Research Association in 1959 to provide industry with representation in the management of the Australian Mineral Development Laboratories. The Association now finances research work into geology, mining and mineral processing at Universities, C.S.I.R.O. and the Australian Mineral Development Laboratories. Membership of the Association at 30 June 1973 was: full members 54, associate members 22, registered divisions 12. Expenditure on research projects during the year 1972-73 was \$294,442.

International relations

Because Australia is a large supplier of certain minerals to the rest of the world and because the welfare of the domestic industry depends to a large extent on the maintenance of a high level of exports, international relations are of considerable importance to the industry, and the Australian Government takes an active role in international consultations and discussions relating to minerals. The most important international commitments are discussed below.

International Tin Agreement

The first International Tin Agreement (of the post-war period) was in operation for five years from 1 July 1956 to 30 June 1961. This Agreement was subsequently replaced by the Second and Third International Tin Agreements, which came into force on 21 February 1962 and 21 March 1967, respectively. Details of these Agreements are given in Year Book No. 57, pages 911-12.

Australia has signed and ratified the Fourth International Tin Agreement which came into operation on 1 July 1971 for a period of 5 years. Australia joined the Fourth Agreement as a 'producing' (i.e. exporting) member, whereas in the past Agreements Australia's status had been that of a 'consuming' (i.e. importing) member. This stems from the fact that Australia's tin production has increased significantly over recent years making it a net exporter of tin.

The objectives of this Agreement are the same as for its predecessors. Producing countries are required to contribute to a buffer-stock-equivalent in cash or tin up to 20,000 tonnes of tin metal, which is used to buffer short-term fluctuations in the world market price. In the event of persistent market disequilibrium through causes beyond the ability of the buffer stock mechanism to control, the agreement also provides for the regulation of exports and stocks to stabilise the market. The main provisions of the Fourth Agreement are substantially the same as those of the Third. However, the Buffer Stock Manager, a paid Council employee charged with operating the buffer stock, has been given somewhat greater flexibility in reacting to market situations.

The International Tin Agreement is operated by the International Tin Council, which is made up of the following Governments: *Producers*—Australia, Bolivia, Indonesia, Malaysia, Nigeria (Federal Republic of), Thailand, Zaire (Republic of). *Consumers*—Austria, Belgium-Luxembourg, Bulgaria, Canada, Czechoslovakia, Denmark, France, Germany (Federal Republic of), Hungary, India, Italy, Japan, Korea (Republic of), Netherlands, Poland, Romania, Spain, Turkey, United Kingdom, Union of Soviet Socialist Republics and Yugoslavia. The producing countries hold a total of 1,000 votes, distributed so that each country receives five initial votes and an additional number corresponding to its percentage as laid down by the Agreement. The consuming countries hold a total of 1,000 votes also distributed so that each country receives five initial votes and an additional number proportionate to quantities consumed. The allocation of votes in each category is periodically reviewed.

The International Tin Agreement establishes floor and ceiling prices for tin and, by the medium of a buffer stock and remedial trading on the London Metal Exchange, aims at confining the price within these limits. Because of a world over-supply situation of tin, the Council imposed export controls on producer members for the period January-September 1973.

International Lead-Zinc Study Group

With the cessation of stockpile buying of lead and zinc by the United States Government in 1958, world producers were faced with the prospect of a serious imbalance between world supply and demand for these metals. To meet this problem a series of meetings of interested governments was held, at which Australia was represented. These meetings culminated in the formation of the International Lead-Zinc Study Group which was established in January 1960. The Study Group comprises the following Governments: Algeria, Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Finland, France, the Federal Republic of Germany, Hungary, India, Italy, Japan, Mexico, Morocco, the Netherlands, Norway, Peru, Poland, the Republic of South Africa, Spain, Sweden, Tunisia, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Yugoslavia and Zambia. The Group provides opportunities for inter-governmental consultations on international trade in lead and zinc and for studies of the world situation in lead and zinc having regard especially to the desirability of providing continuous accurate information regarding the supply and demand position and its probable development.

MINERAL INDUSTRY STATISTICS

Statistics presented in this chapter refer mainly to the mining industry, mineral production, mineral exploration, and overseas participation in the Australian mining industry. In addition to the mining industry, data relating to mineral processing and treatment and overseas trade are included to give more information about the mining industry and other associated activities in the Australian economy.

Mining industry statistics

This section contains statistics of the mining industry for all States and Territories and Australia obtained from the annual Mining Censuses.

Prior to 1968-69 the Annual Mining and Quarrying Census related to years ended 31 December. However, commencing with 1968-69, the Mining Census was changed to a year ended 30 June to conform with the period covered by other economic censuses in Australia. There are several other differences between the censuses of 1968-69 and later years, and those for earlier years (mainly in definition, scope and coverage) and as a result the statistics obtained for 1968-69 and later, are not strictly comparable with those for earlier years. Further information regarding these differences is given in Year Book No. 57, pages 912-914. Mining industry statistics for years prior to 1968-69 are also contained in Year Book No. 57 and earlier issues.

For the year ended June 1969, the Mining Census (including quarrying) was conducted for the first time on an integrated basis with Censuses of Manufacturing, Electricity and Gas, Retail Trade and Selected Services, and Wholesale Trade.

Briefly, the integration of these economic censuses was designed to increase substantially the usefulness and comparability of economic statistics collected and published by the Bureau, and to form a basis for the sample surveys which supply current economic statistics from quarter to quarter, particularly those which provide data for the quarterly national income and expenditure estimates. A detailed description of the integrated censuses is contained in Chapter 31, Year Book No. 56.

For 1969-70 and subsequent years the annual Mining Census has been conducted on the same basis as that for 1968-69.

The table below shows key items of data for Australia for 1972-73 and summary data for 1968-69 to 1971-72. Each following table shows statistics for a particular item for all States and Territories and Australia for 1972-73 and summary data for 1968-69 to 1971-72, and is preceded by an explanation of the item.

MINING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY SUB-DIVISION AUSTRALIA

Industry sub-division	ASIC code(a)	Number of establishments operating at end of June	Persons employed at end of June(b)			Wages and salaries \$'000	Turn-over \$'000	Stocks at 30 June		Purchases, transfers in and selected expenses \$'000	Value added \$'000	Fixed capital expenditure (outlay on fixed tangible assets less disposals) \$'000
			Males	Females	Total			Opening	Closing			
1972-73—		No.	No.	No.	No.							
Metallic minerals	11	224	29,787	1,855	31,642	200,805	1,175,452	131,793	125,892	353,096	816,454	174,567
Coal	12	129	21,940	487	22,427	155,954	855,069	57,039	62,505	222,995	637,539	118,791
Crude petroleum including natural gas	13	9										
Construction materials	14	707	5,879	411	6,290	32,242	169,505	15,289	14,782	62,262	106,735	10,834
Other non-metallic minerals	15	261	2,581	167	2,748	14,185	61,467	6,830	8,596	29,012	34,222	18,737
Total mining, excluding services to mining—												
1972-73		1,330	60,187	2,920	63,107	403,186	2,261,493	210,951	211,775	667,365	1,594,951	322,930
1971-72		1,426	60,222	2,957	63,179	373,999	1,994,261	165,244	211,373	611,888	1,428,502	482,611
1970-71		1,566	59,816	2,826	62,642	325,178	1,814,918	142,298	157,365	540,493	1,289,492	520,575
1969-70		1,502	56,468	2,382	58,850	275,620	1,479,785	114,960	138,354	460,594	1,042,587	348,255
1968-69		1,493	53,353	2,089	55,442	241,292	1,147,881	97,771	113,367	414,277	749,201	303,537

(a) Australian Standard Industrial Classification. (b) Includes working proprietors.

Number of establishments

The following table shows the number of establishments operating at end of June. These relate to mining establishments as such and do not include the numbers of separately located administrative offices and ancillary units.

MINING ESTABLISHMENTS: NUMBER OF ESTABLISHMENTS OPERATING AT END OF JUNE BY INDUSTRY SUB-DIVISION

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1972-73—										
Metallic minerals	11	86	6	35	4	67	16	10	..	224
Coal	12	95	5	24	1	3	1	..	..	129
Crude petroleum including natural gas	13	..	2	4	1	2	..	..	..	9
Construction materials	14	223	212	149	60	28	21	5	9	707
Other non-metallic minerals	15	128	36	28	28	31	10	..	..	261
Total mining, excluding services to mining—										
1973		532	261	240	94	131	48	15	9	1,330
1972		588	264	266	104	115	53	26	10	1,426
1971		668	266	292	122	122	64	24	8	1,566
1970		620	221	300	130	122	78	25	6	1,502
1969		581	248	299	135	128	75	20	7	1,493

(a) Australian Standard Industrial Classification.

Employment

The statistics of the number of persons employed shown in the following table relate to working proprietors at the end of June and employees on the payroll of the last pay period in June, including those working at separately located administrative offices and ancillary units in the State. Note that persons employed in each State (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in the State, even though the administrative offices or ancillary units may have served establishments located in another State.

MINING ESTABLISHMENTS: MALES, FEMALES AND PERSONS EMPLOYED(a) BY INDUSTRY SUB-DIVISION, AT END OF JUNE 1973

Industry sub-division	ASIC code(b)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
MALES EMPLOYED										
1972-73—										
Metallic minerals	11	6,414	3,166	7,392 4,042	1,503	9,423 709	3,913 (c)	1,352	..	29,787
Coal	12	13,749								
Crude petroleum including natural gas	13	..	..	(c)	..	..	..	..	..	..
Construction materials	14	1,654	1,729	1,211	526	484	142	..	76	5,819
Other non-metallic minerals	15	1,026	237	(c)	325	652	(c)	57	..	2,578
Total mining, excluding services to mining—										
1973		22,843	5,132	12,955	2,354	11,268	4,150	1,409	76	60,187
1972		24,192	5,560	12,308	2,293	9,816	4,449	1,513	91	60,222
1971		24,640	5,189	11,859	1,866	10,285	4,463	1,427	87	59,816
1970		24,135	5,261	10,701	1,924	8,857	4,139	1,361	90	56,468
1969		23,064	5,092	9,889	1,868	8,189	3,932	1,233	86	53,353

FEMALES EMPLOYED

1972-73—										
Metallic minerals	11	213	212	538 101	160	663 16	174 (c)	59	..	1,855
Coal	12	203								
Crude petroleum including natural gas	13	..	..	(c)	..	..	..	..	..	..
Construction materials	14	77	170	80	24	52	2	..	1	411
Other non-metallic minerals	15	83	12	(c)	12	49	(c)	5	..	167
Total mining, excluding services to mining—										
1973		576	394	733	196	780	176	64	1	2,920
1972		662	455	735	218	621	191	74	1	2,957
1971		642	394	690	128	704	197	68	3	2,826
1970		660	326	635	122	408	173	56	2	2,382
1969		564	325	558	96	343	145	48	10	2,089

PERSONS EMPLOYED

1972-73—										
Metallic minerals	11	6,627	3,378	7,930 4,143	1,663	10,086 725	4,087 (c)	1,411	..	31,642
Coal	12	13,952								
Crude petroleum including natural gas	13	..	..	(c)	..	..	..	..	..	..
Construction materials	14	1,731	1,899	1,291	550	536	144	..	77	6,290
Other non-metallic minerals	15	1,109	249	(c)	337	701	(c)	62	..	2,748
Total mining, excluding services to mining—										
1973		23,419	5,526	13,688	2,550	12,048	4,326	1,473	77	63,107
1972		24,854	6,015	13,043	2,511	10,437	4,640	1,587	92	63,179
1971		25,282	5,583	12,549	1,994	10,989	4,660	1,495	90	62,642
1970		24,795	5,587	11,336	2,046	9,265	4,312	1,417	92	58,850
1969		23,628	5,417	10,447	1,964	8,532	4,077	1,281	96	55,442

(a) At end of June; includes working proprietors. (b) Australian Standard Industrial Classification. (c) Not available for publication.

Mining accidents

Particulars of numbers of persons killed and injured in accidents in mines and associated treatment plants are recorded by State Mines Departments. Numbers injured are not reported on a uniform basis in all States, as varying criteria are used in determining what constitutes injury. A table setting out mining accidents by States is shown below.

MINING ACCIDENTS(a)

	Metal mining		Fuel mining		Construction material quarrying(b)		Non-metal (excluding fuel) mining		Total mining and quarrying	
	Number of casualties		Number of casualties		Number of casualties		Number of casualties		Number of casualties	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
1972-73—										
New South Wales	4	64	13	43	..	10	1	20	18	137
Victoria . . . . .	..	1	..	34	1	(c)61	..	(c)10	1	(c)106
Queensland	3	184	2	196	..	9	..	7	5	396
South Australia . . . . .	..	18	1	4	2	39	2	3	5	64
Western Australia	(c)8	(c)332	..	66	..	12	..	6	(c)8	(c)416
Tasmania	3	145	..	..	..	10	..	..	3	155
Northern Territory	2	28	..	4	..	..	..	..	2	32
Australian Capital Territory . . . . .	..	..	..	..	(b)	(b)	..	..	(b)	(b)
Australia(b)(c)	20	772	16	347	3	141	3	46	42	1,306
1971-72(b)	29	685	41	425	4	118	1	33	75	1,261

(a) See text regarding comparability between States. (b) Mining accident data for construction material quarrying in the A.C.T. are not available. (c) These figures include some accidents in the mineral processing industry, and, in Western Australia, in electricity generating plants at the mine site.

Wages and salaries

The following table shows the wages and salaries of all employees of the establishment, including those working at separately located administrative offices and ancillary units in the State. Drawings of working proprietors are not included.

MINING ESTABLISHMENTS: WAGES AND SALARIES BY INDUSTRY SUB-DIVISION
(\$'000)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1972-73—										
Metallic minerals	11	39,091	22,561	55,119 32,058	8,962	60,451	26,955 (b)	10,400	..	200,805
Coal	12	96,412								
Crude petroleum including natural gas	13	..	..	(b)	..	4,346	..	..	..	155,954
Construction materials	14	9,433	9,514	6,021	2,627	3,053	647	..	503	32,242
Other non-metallic minerals	15	5,014	1,079	(b)	1,778	4,388	(b)	443	..	14,185
Total mining, excluding services to mining—										
1972-73		149,950	33,154	95,039	13,367	72,238	28,091	10,843	503	403,186
1971-72		147,098	32,194	83,087	12,255	62,388	26,458	10,066	453	373,999
1970-71		132,236	27,518	69,211	8,459	55,941	22,641	8,702	471	325,178
1969-70		120,079	23,671	55,430	7,360	42,603	18,544	7,478	455	275,620
1968-69		108,287	22,840	48,181	6,929	30,851	17,217	6,626	360	241,292

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Turnover

The following table shows turnover (sales of minerals and other goods whether produced by the establishment or not, plus transfers out of minerals and other goods to other establishments of the same enterprise, plus all other operating revenue from outside the enterprise, such as commission, repair and service revenue). This item excludes rents, leasing revenue, interest, royalties, and receipts from the sale of fixed tangible assets.

MINING ESTABLISHMENTS: TURNOVER, BY INDUSTRY SUB-DIVISION
(S'000)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1972-73—										
Metallic minerals . . .	11	146,229	314,415	228,268 195,404	83,249	583,343	90,605 (b)	60,531	..	1,175,452
Coal . . .	12	279,189								
Crude petroleum including natural gas . . .	13	..	(b)	(b)	..	45,602	..	..	..	855,069
Construction materials . . .	14	52,640	56,654	27,728	13,067	11,618	3,407	..	2,547	169,505
Other non-metallic minerals . . .	15	21,128	6,714	(b)	12,292	12,486	(b)	1,843	..	61,467
Total mining, excluding services to mining—										
1972-73		499,187	377,783	462,594	108,608	653,049	95,350	62,374	2,547	2,261,493
1971-72		483,654	336,464	345,568	96,034	593,944	88,675	47,747	2,176	1,994,261
1970-71		475,180	270,659	323,536	96,856	527,107	78,057	41,336	2,187	1,814,918
1969-70		443,443	118,098	299,956	90,595	403,164	84,141	38,411	1,978	1,479,785
1968-69		371,184	92,730	228,590	81,184	273,186	63,073	36,292	1,641	1,147,881

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Purchases, transfers in and selected expenses

The following table shows the total of purchases of electricity, fuels, stores and other materials, transfers in of goods from other establishments of the same enterprise, charges for processing and other commission work and payments to mining contractors, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.

MINING ESTABLISHMENTS: PURCHASES, TRANSFERS IN AND SELECTED EXPENSES
BY INDUSTRY SUB-DIVISION,
(S'000)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1972-73—										
Metallic minerals . . .	11	51,192	33,523	52,062 76,167	25,604	185,295	29,622 (b)	16,200	..	353,096
Coal . . .	12	101,552								
Crude petroleum including natural gas . . .	13	..	(b)	(b)	..	4,523	..	..	..	222,995
Construction materials . . .	14	16,848	23,611	9,382	3,985	5,133	1,681	..	907	62,262
Other non-metallic minerals . . .	15	10,621	3,531	(b)	6,453	4,222	(b)	715	..	29,012
Total mining, excluding services to mining—										
1972-73		180,214	60,666	141,686	36,041	199,171	31,765	16,915	907	667,365
1971-72		181,356	53,953	117,519	33,922	179,725	29,948	14,669	796	611,888
1970-71		183,804	52,470	83,101	31,894	146,904	21,408	19,989	921	540,493
1969-70		158,636	38,016	73,311	30,770	125,147	20,796	13,207	711	460,594
1968-69		147,166	38,469	75,913	26,242	90,867	20,128	14,827	665	414,277

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Stocks

Statistics on the value of closing stocks are shown in the following table. Figures include stocks of materials, fuels, etc., and mine products and work-in-progress of the establishment whether located at the establishment or elsewhere.

MINING ESTABLISHMENTS: CLOSING STOCKS AT END OF JUNE BY INDUSTRY SUB-DIVISION
(S'000)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
CLOSING STOCKS										
1973—										
Metallic minerals . . .	11	34,644	11,948	16,599 19,175	6,937	50,392	12,511 (b)	7,596	..	125,892
Coal . . .	12	26,184								
Crude petroleum including natural gas . . .	13	..	(b)	(b)	..	2,265	..	..	..	62,505
Construction materials . . .	14	7,325	3,194	1,818	730	883	355	..	226	14,782
Other non-metallic minerals . . .	15	1,820	746	(b)	1,519	3,922	(b)	251	..	8,596
Total mining, excluding services to mining—										
1973		69,973	15,888	38,261	9,186	57,461	12,933	7,847	226	211,775
1972		64,639	16,003	38,567	8,156	60,489	14,391	8,897	230	211,373
1971		46,084	13,268	28,357	5,649	45,225	12,502	6,114	167	157,365
1970		42,815	12,258	22,861	4,467	39,093	11,464	5,198	197	138,354
1969		37,347	9,713	19,733	3,607	28,343	9,450	5,097	78	113,367

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Value added

The following table shows value added, calculated as the value of turnover (sales plus transfers out and other operating revenue) and closing stocks *less* purchases plus transfers in and selected expenses and opening stocks.

MINING ESTABLISHMENTS: VALUE ADDED, BY INDUSTRY SUB-DIVISION
(\$'000)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1972-73—										
Metallic minerals	11	97,151	280,158	173,859 122,734	59,072	393,776	59,553	44,011	..	816,454
Coal	12	178,506								
Crude petroleum including natural gas	13	..	33,250	18,319	9,052	6,499	1,740	..	..	637,539
Construction materials	14	35,279								
Other non-metallic minerals	15	11,356	3,211	(b)	5,697	9,283	(b)	951	1,644	106,735
Total mining, excluding services to mining—										
1972-73		322,291	316,619	322,103	73,822	451,324	62,186	44,962	1,644	1,594,951
1971-72		320,546	283,445	239,208	64,707	424,008	59,317	35,826	1,444	1,428,502
1970-71		292,194	217,953	245,746	65,665	386,444	58,095	22,161	1,236	1,289,492
1969-70		290,232	82,478	229,970	60,120	286,874	65,791	25,735	1,386	1,042,587
1968-69		227,752	51,628	155,788	55,473	191,098	44,286	22,200	976	749,201

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Fixed capital expenditure

Figures in the following table relate to fixed capital expenditure. Such figures are calculated by deducting disposals of fixed tangible assets from the total outlay on new and second-hand tangible assets.

MINING ESTABLISHMENTS: FIXED CAPITAL EXPENDITURE (OUTLAY ON FIXED TANGIBLE ASSETS LESS DISPOSALS) BY INDUSTRY SUB-DIVISION
(\$'000)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1972-73—										
Metallic minerals	11	10,685	22,327	60,915 62,076	14,566	76,299	12,107	10,229	..	174,567
Coal	12	22,339								
Crude petroleum including natural gas	13	..	2,225	1,660	860	1,441	..	..	..	11,879
Construction materials	14	5,088								
Other non-metallic minerals	15	3,454	1,369	(b)	636	642	170	111	77	10,834
Total mining, excluding services to mining—										
1972-73		41,566	25,920	128,696	16,062	87,785	12,482	10,341	77	322,930
1971-72		76,963	32,335	155,810	12,082	167,174	16,532	21,672	44	482,611
1970-71		77,008	80,389	103,454	14,665	186,643	25,967	31,837	610	520,575
1969-70		60,885	93,393	54,295	12,311	92,904	20,597	13,655	216	348,255
1968-69		44,857	103,816	38,808	7,786	84,692	12,910	10,618	51	303,537

(a) Australian Standard Industrial Classification. (b) Not available for publication.

Mineral production

This section contains details of the output (quantities and values) of minerals during the year ended June 1973 for all States and Territories and Australia, together with information for Australia for the four preceding years.

Minerals are classified into five major groups, namely metallic minerals, coal, crude petroleum (including natural gas), construction materials and other non-metallic minerals. In the statistics published in this section the minerals are arranged in these five groups.

Mineral production statistics are derived from data collected in the annual mining census (which since 1968-69 has been collected on a June year basis), and in returns to the various State Mines Departments, supplemented in some cases by information made available by the Department of Minerals and Energy and by data compiled by the Bureau of Statistics from other sources.

Scope of mineral statistics and relation to mining industry statistics

The statistics of mineral production for the years ended June 1969 and later years apart from the change to a June year basis, are comparable with those for earlier years. Although the integration of the mining census for 1968-69 with other economic censuses conducted in that year (manufacturing, electricity and gas, retail trade, and wholesale trade) was accompanied by major changes in the scope of the mining census and thus in the scope of the mining industry statistics, these changes had little effect on the scope of the mineral production statistics now published. This is because mineral

production data were collected, not only from establishments coming within the scope of the mining census as now defined, but also from those establishments classified as non-mining establishments which, as a subsidiary activity, carried out mining or quarrying activities (e.g. brick and cement manufacturing establishments extracting clays, limestone), and from itinerant and part-time miners.

However, as in past years. coverage is deficient in the case of some minerals, principally because of the difficulties in obtaining complete lists of producers and collecting satisfactory returns.

Principles for measuring output of minerals

The quantities of individual minerals produced are recorded, in general, in the form in which the minerals are dispatched from the mine or from associated treatment works in the locality of the mine. Thus, for metallic minerals, the output is recorded as ore if no treatment is undertaken at or near the mine, and as concentrate if ore dressing operations are carried out in associated works in the locality of the mine. In addition to the basic quantity data, the content of metallic minerals (based on assay) are recorded. No allowance has been made for losses in smelting and refining and the quantities shown are therefore, in general, greater than the contents actually recoverable.

The output of individual minerals is valued at the mine or at associated treatment works in the locality of the mine. This valuation is derived, in general, by valuing the quantity produced during the year at the unit selling value (including any subsidy) less any transport costs from the mine or associated treatment works to the point of sale. For some metals, however, special values of output, based on actual or estimated realisations are supplied by certain large mineral producers.

It should be noted that, commencing with the year 1968-69, the output of metals by enterprises for their own consumption in Australia has been valued on a different basis to that used in previous years. The effect of these changes is that the overall value of coal produced in 1968-69 and later years is somewhat lower and the value of certain other minerals somewhat higher than if the earlier valuation methods had been retained.

Quantity of minerals produced

The following tables show particulars of the quantities of minerals produced during 1972-73 and earlier years together with details of the aggregate quantity of each metal, metallic oxide or elements contained in the various metallic minerals produced.

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES CONCENTRATES ETC 1972-73

Mineral		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
METALLIC MINERALS										
Antimony concentrate	tonnes	1,440	..	..	..	..	..	..	..	1,440
Antimony content	"	930	..	..	..	..	..	..	..	930
Antimony ore	tonnes	..	(a)	..	..	..	..	..	..	(a)
Antimony content	"	..	(a)	..	..	..	..	..	..	(a)
Bauxite	'000 tonnes	10	4	7,773	..	5,500	..	1,415	..	14,702
Alumina (Al ₂ O ₃) content	"	4	2	(a)	..	(a)	..	(a)	..	(a)
Beryllium ore	tonnes	..	..	..	..	118	..	..	..	118
Beryllium oxide (Be O) content	m.t.u.	..	..	..	..	1,386	..	..	..	1,386
Bismuth concentrate	tonnes	..	..	..	..	..	..	1,609	..	1,609
Bismuth content	kg	..	..	..	..	..	..	343,349	..	343,349
Copper content	tonnes	..	..	..	..	..	..	157	..	157
Gold content	'000 grams	..	..	..	..	..	..	2,026	..	2,026
Selenium content	tonnes	..	..	..	..	..	..	31	..	31
Silver content	'000 grams	..	..	..	..	..	..	520	..	520
Copper concentrate	tonnes	47,065	..	612,469	38,415	465	91,514	34,844	..	824,772
Copper content	"	11,481	..	134,083	8,881	139	23,449	8,730	..	186,763
Bismuth content	kg	..	..	..	..	..	..	12,100	..	12,100
Gold content	'000 grams	..	..	1,405	99	(b)	475	484	..	2,463
Lead content	tonnes	633	..	..	..	..	..	..	..	633
Silver content	'000 grams	8,023	..	20,387	1,625	(c)	3,965	4,343	..	38,343
Zinc content	tonnes	2,058	..	..	..	..	..	..	..	2,058
Copper ore	tonnes	728	..	11,631	..	..	..	145	..	12,504
Copper content	"	66	..	864	..	..	..	16	..	946
Gold content	'000 grams	1	..	..	..	..	..	..	..	1
Copper ore for fertilizer	tonnes	..	..	..	3,048	..	..	..	..	3,048
Copper content	"	..	..	..	24	..	..	..	..	24
Copper oxide	tonnes	..	..	..	976	..	..	..	..	976
Copper content	"	..	..	..	752	..	..	..	..	752
Copper precipitate	tonnes	154	..	6	6	..	..	4	..	170
Copper content	"	119	..	5	4	..	..	2	..	130
Gold bullion(d)	'000 grams	25	148	983	..	12,494	..	4,280	..	17,930
Gold content	"	20	141	337	..	(e)9,264	..	4,176	..	13,938
Silver content	"	1	..	646	..	(f)2,616	..	1	..	3,264
Iron ore	'000 tonnes	..	..	..	6,874	64,434	(g)2,451	885	..	74,645
Iron content	"	..	..	..	4,307	40,693	1,696	508	..	47,204
Iron oxide(h)	tonnes	35,691	596	40,692	..	..	9,590	..	..	86,569

For footnotes see end of table.

QUANTITY OF MINERALS PRODUCED: AND METALLIC CONTENTS OF ORES
CONCENTRATES ETC., 1972-73—*continued*

Mineral		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Lead concentrate . . .	tonnes	315,885	..	243,456	..	(i) 22,837	..	..	..	(j)582,178
Lead content . . .	"	226,800	..	116,481	..	(k) 13,414	..	..	..	356,695
Antimony content . . .	"	619	..	..	..	..	..	..	..	619
Cadmium content . . .	"	48	..	5	..	..	..	..	..	53
Copper content . . .	"	2,767	..	331	..	..	78	..	..	3,176
Gold content . . .	'000 grams	221	..	..	..	..	91	..	..	312
Silver content . . .	"	230,367	..	243,463	..	..	16,785	..	..	490,615
Sulphur content . . .	tonnes	46,261	..	..	..	..	4,565	..	..	50,826
Zinc content . . .	"	12,301	..	15,709	..	(l) 3,776	..	..	..	31,786
Lead-copper concentrate	tonnes	..	..	..	..	..	16,605	..	..	16,605
Lead content . . .	"	..	..	..	..	..	5,034	..	..	5,034
Copper content . . .	"	..	..	..	..	..	1,828	..	..	1,828
Gold content . . .	'000 grams	..	..	..	..	..	1,038	..	..	1,038
Silver content . . .	"	..	..	..	..	..	49,357	..	..	49,357
Sulphur content . . .	tonnes	..	..	..	..	..	4,427	..	..	4,420
Zinc content . . .	"	..	..	..	..	..	2,333	..	..	2,333
Lead ore(m) . . .	tonnes	3,471	..	36,278	11	..	..	..	..	39,767
Lead content . . .	"	535	..	1,996	(n)22	..	..	..	..	2,553
Copper content . . .	"	4	..	..	..	..	..	..	..	4
Silver content . . .	'000 grams	1,087	..	2,388	5	..	..	..	..	3,480
Zinc content . . .	tonnes	63	..	..	..	..	..	..	..	63
Lead zinc middlings . . .	tonnes	26,553	..	..	..	..	..	..	..	26,553
Lead content . . .	"	5,733	..	..	..	..	..	..	..	5,733
Antimony content . . .	"	34	..	..	..	..	..	..	..	34
Cadmium content . . .	"	29	..	..	..	..	..	..	..	29
Copper content . . .	"	175	..	..	..	..	..	..	..	175
Gold content . . .	'000 grams	23	..	..	..	..	..	..	..	23
Silver content . . .	"	23,880	..	..	..	..	..	..	..	23,880
Sulphur content . . .	tonnes	5,515	..	..	..	..	..	..	..	5,515
Zinc content . . .	"	8,038	..	..	..	..	..	..	..	8,038
Manganese ore—										
Metallurgical grade . . .	tonnes	..	..	..	..	30,371	..	1,264,986	..	1,295,357
Manganese content . . .	"	..	..	..	..	14,525	..	609,517	..	624,042
Other grades . . .	tonnes	..	..	16	..	..	..	..	..	16
Manganese content . . .	"	..	..	4	..	..	..	..	..	4
Mineral sands(o)—										
Ilmenite concentrate . . .	tonnes	12,116	..	..	268	p708,612	..	..	..	720,996
Titanium dioxide content . . .	"	5,452	..	..	134	390,928	..	..	..	396,514
Leucopene concentrate . . .	tonnes	..	..	..	..	10,465	..	..	..	10,465
Titanium dioxide content . . .	"	..	..	..	..	9,336	..	..	..	9,336
Monazite concentrate . . .	tonnes	1,971	..	41	..	2,522	..	..	..	4,534
Monazite content . . .	"	1,774	..	26	..	2,348	..	..	..	4,148
Rutile concentrate . . .	tonnes	216,792	..	98,267	894	2,745	..	..	..	318,698
Titanium dioxide content . . .	"	208,119	..	94,336	856	2,651	..	..	..	305,962
Xenotime concentrate . . .	tonnes	..	..	..	..	17	..	..	..	17
Yttrium oxide content . . .	kg	..	..	..	..	4,318	..	..	..	4,318
Zircon concentrate . . .	tonnes	242,499	..	73,666	..	56,859	..	..	..	373,024
Zirconium dioxide content . . .	"	161,403	..	48,805	..	37,337	..	..	..	247,545
Nickel concentrate . . .	tonnes	..	..	..	..	268,349	..	..	..	268,349
Nickel content . . .	"	..	..	..	..	36,104	..	..	..	36,104
Cobalt content . . .	"	..	..	..	..	203	..	..	..	203
Copper content . . .	"	..	..	..	..	2,659	..	..	..	2,659
Nickel ore . . .	tonnes	..	..	..	..	(a)	..	..	..	(a)
Nickel content . . .	"	..	..	..	..	(a)	..	..	..	(a)
Pyrite concentrate . . .	tonnes	..	..	283	..	197,813	..	..	..	198,096
Sulphur content . . .	"	..	..	130	..	93,709	..	..	..	93,839
fantalite-colombite concentrate . . .	kg	..	..	..	..	236,831	..	..	..	236,831
Tantalite-colombite content . . .	"	..	..	..	..	84,744	..	..	..	84,744
Tin concentrate . . .	tonnes	5,265	10	1,952	..	1,360	13,895	31	..	22,513
Tin content . . .	"	2,998	5	1,342	..	972	6,289	19	..	11,625
Tin-copper concentrate . . .	tonnes	..	..	..	..	..	4,586	..	..	4,586
Tin content . . .	"	..	..	..	..	..	129	..	..	129
Copper content . . .	"	..	..	..	..	..	878	..	..	878
Tungsten concentrates—										
Scheelite concentrate . . .	tonnes	1	..	..	..	..	1,788	..	..	1,789
Tungstic oxide content . . .	m.t.u.	73	..	..	..	..	131,900	..	..	131,973
Wolfram concentrate . . .	tonnes	2	..	117	..	..	642	..	..	761
Tungstic oxide content . . .	m.t.u.	128	..	7,900	..	..	47,500	..	..	55,528
Wolfram ore . . .	tonnes	..	122	..	..	..	..	..	..	122
Tungstic oxide content . . .	m.t.u.	..	100	..	..	..	..	..	..	100
Zinc concentrate . . .	tonnes	543,586	..	196,575	..	..	125,087	..	..	865,248
Zinc content . . .	tonnes	294,357	..	101,816	..	..	66,544	..	..	462,717
Cadmium content . . .	"	989	..	393	..	..	165	..	..	1,547
Cobalt content . . .	"	107	..	..	..	..	..	..	..	107
Copper content . . .	"	708	..	..	..	..	518	..	..	1,226
Gold content . . .	'000 grams	36	..	..	..	..	165	..	..	201
Lead content . . .	tonnes	6,072	..	3,672	..	..	4,616	..	..	14,360
Manganese content . . .	"	5,489	..	..	..	..	2,954	..	..	8,443
Mercury content . . .	kg	..	..	..	..	..	512	..	..	512
Silver content . . .	'000 grams	18,381	..	26,000	..	..	16,642	..	..	61,023
Sulphur content . . .	tonnes	220,992	..	62,904	..	..	41,064	..	..	324,960

For footnotes see end of table.

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES
CONCENTRATES ETC., 1972-73—*continued*

Mineral		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
COAL										
Black coal—	'000 tonnes	38,060	..	18,842	1,571	1,154	128	..	..	59,755
Bituminous	..	38,060	..	18,255	..	..	128	..	..	56,444
Sub-bituminous	..	..	..	587	1,571	1,154	..	..	..	3,311
Brown coal (lignite)(g)	..	..	20,922	..	..	..	..	..	..	20,922
Brown coal briquettes	..	..	1,228	..	..	..	..	..	..	1,228
PETROLEUM(r)										
Crude oil	'000 cu m	..	18,179	117	..	2,373	..	..	..	20,669
Natural gas	mil. cu m	..	1,472	269	1,122	851	..	..	..	3,713
Natural gas condensate(s)	cu m	..	2,648	..	..	6,884	..	..	..	9,532
Ethane(t)	'000 cu m	..	27,436	..	..	..	..	..	..	27,436
Liquefied petroleum gases(t)—										
Propane	'000 cu m	..	798	..	..	..	..	..	..	798
Butane	'000 cu m	..	988	..	..	..	..	..	..	988
CONSTRUCTION MATERIALS(u)										
Sand	'000 tonnes	8,151	6,660	3,838	2,447	n.a.	203	169	402	(v)21,869
Gravel	..	3,535	3,634	4,094	832	n.a.	1,110	1,178	138	(v)14,520
Dimension stone	..	19	15	1	45	208	1	..	1	288
Crushed and broken stone	..	11,547	15,805	6,011	10,930	4,364	1,452	334	594	51,037
Other (decomposed rock, etc.)	..	37,208	3,180	364	1,211	..	151	..	..	42,113
OTHER NON-METALLIC MINERALS										
Asbestos	tonnes	32,358	..	..	..	..	..	..	..	32,358
Barite	..	406	..	..	17,842	..	..	4,927	..	23,175
Carbon dioxide	..	..	..	..	(a)	..	..	..	..	(a)
Clays—										
Brick and shale	'000 tonnes	3,227	1,916	894	660	1,257	128	15	..	8,098
Other	..	410	313	162	95	249	91	..	..	1,321
Diatomite	tonnes	1,426	2,279	1,087	..	..	..	..	..	4,792
Dolomite	..	868	..	12,243	385,349	..	3,852	..	..	402,312
Felspar (including cor-nish stone)	..	1,700	..	..	973	243	..	..	..	2,916
Fluorspar	..	..	1,700	..	..	..	..	..	..	1,700
Garnet concentrate	..	111	..	..	..	..	..	..	..	111
Gypsum	..	33,967	43,696	..	743,544	140,510	..	..	..	961,717
Limestone (including shell and coral)	'000 tonnes	3,677	2,163	1,700	1,636	1,225	559	..	..	10,960
Lithium ores(w)	tonnes	..	..	..	..	695	..	..	..	695
Lithia (Li ₂ O) content	m. t. u.	..	..	..	..	2,828	..	..	..	2,828
Magnesite, crude	tonnes	21,308	..	..	514	..	..	..	..	21,822
Mineral pigments—red ochre	..	..	..	..	..	551	74	..	..	625
Peat(x)	..	4,522	..	..	..	(a)	241	..	..	(a)
Pebbles—for grinding	..	..	..	..	375	..	1,134	..	..	1,509
Perlite	..	..	..	1,834	..	..	..	..	..	1,834
Phosphate rock	..	..	..	..	1,494	..	..	..	..	1,494
Pyrophyllite	..	12,718	..	..	..	..	..	..	..	12,718
Salt	'000 tonnes	..	(a)	(a)	591	2,913	..	..	..	3,671
Silica	tonnes	408,068	109,024	528,183	62,132	35,816	25,596	..	..	1,168,819
Sillimanite	..	42	..	..	612	..	..	..	..	654
Talc (including steatite and chlorite)	..	1,340	..	..	11,871	34,716	..	..	..	47,927
Vermiculite	..	..	..	..	..	636	..	..	..	636

(a) Not available for publication. (b) Included with gold content of gold bullion. (c) Included with silver content of gold bullion. (d) Includes alluvial gold. (e) Includes gold content of copper concentrate. (f) Includes silver content of copper concentrate. (g) Iron concentrate. (h) For cement manufacture, coal washing, flux and gas purification. (i) Not available for publication; excluded from total. (j) Excludes Western Australian production. (k) Included with lead content of South Australian lead ore. (l) Not available for publication, omitted from total. (m) Includes silver-lead ore, silver-lead slimes and lead slag. (n) Includes lead content of Western Australian lead concentrate. (o) Details relating to rutile-zircon concentrates produced in one State and finally separated in another State are included in separated form in the data of the State of origin. (p) Includes beneficiated Ilmenite. (q) In addition 3,199,000 tonnes of brown coal valued at \$3,839,000 was used in making briquettes. (r) Source: Department of Minerals and Energy and State Mines Departments. (s) Sales—excludes condensate blended with other petroleum products. (t) Excludes refinery production. (u) Incomplete see individual States. (v) Incomplete, excludes Western Australia. (w) Used mainly for non-metallic purposes. (x) Comprises peat for fertiliser and peat moss.

**QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES
CONCENTRATES ETC.: AUSTRALIA**

<i>Mineral</i>		1968-69	1969-70	1970-71	1971-72	1972-73
METALLIC MINERALS						
Antimony concentrate	tonnes	265	345	887	611	1,440
Antimony content	"	173	131	424	338	930
Antimony ore	tonnes	..	7	2,934	(a)	(a)
Antimony content	"	..	2	278	(a)	(a)
Bauxite	'000 tonnes	6,317	8,294	11,043	13,697	14,702
Alumina (Al ₂ O ₃) content	(a)	(a)	(a)	(a)	(a)	(a)
Beryllium ore	tonnes	14	(a)	28	61	118
Beryllium oxide (BeO) content	mtu	174	(a)	338	678	1,386
Bismuth concentrate	tonnes	1,553	1,768	1,896	1,281	1,609
Bismuth content	kg	191,271	200,663	232,936	325,474	343,349
Copper content	tonnes	161	137	110	114	157
Gold content	'000 grams	796	670	1,004	2,239	2,026
Selenium content	tonnes	1	..	..	36	31
Silver content	'000 grams	210	134	175	436	520
Copper concentrate	tonnes	500,330	544,909	662,030	636,018	824,772
Copper content	"	114,914	129,704	161,575	159,239	186,763
Bismuth content	kg	..	..	5,080	22,353	12,100
Gold content	'000 grams	2,830	2,821	2,800	2,985	2,463
Lead content	tonnes	1,056	937	777	341	633
Palladium content	'000 grams	..	..	2	..	..
Platinum content . . . . .	"	..	..	1	..	..
Silver content	"	31,736	3,3411	35,343	32,342	38,343
Zinc content	tonnes	2,015	1,586	1,850	994	2,058
Copper ore	tonnes	45,500	82,575	30,783	18,890	12,504
Copper content	"	2,783	3,509	1,816	1,261	946
Gold content	'000 grams	11	25	1	..	1
Silver content	"	149	79	102	84	..
Copper ore for fertilizer	tonnes	1,233	897	304	152	3,048
Copper content	"	150	135	26	7	24
Copper oxide	tonnes	..	..	..	663	976
Copper content . . . . .	"	..	..	..	509	752
Copper precipitate	tonnes	618	302	278	247	170
Copper content	"	360	180	179	179	130
Gold content	'000 grams	11	1	3	..	..
Silver content	"	1	..	..	..	..
Gold bullion (b)	'000 grams	24,638	21,757	18,854	20,762	17,930
Gold content	"	17,853	15,627	14,053	16,179	13,938
Silver content	"	5,101	4,926	4,034	3,769	3,264
Gold ore	tonnes	6	914	1,087	..	..
Gold content	'000 grams	1	25	3	..	..
Iron ore (c)	'000 tonnes	32,541	45,119	57,110	62,103	74,645
Iron content	"	20,831	28,676	36,107	39,255	47,204
Iron oxide (d)	tonnes	46,941	58,401	64,080	66,908	86,569
Lead concentrate	tonnes	652,225	692,836	631,722	622,592	(e)582,178
Lead content	"	396,531	429,316	392,834	395,186	356,695
Antimony content	"	690	776	662	711	619
Cadmium content	"	61	48	89	83	53
Copper content	"	3,524	3,420	3,258	3,603	3,176
Gold content	'000 grams	357	348	324	382	312
Silver content	"	589,357	693,460	588,128	540,465	490,615
Sulphur content	tonnes	53,338	56,654	50,356	56,831	50,826
Zinc content	"	34,416	16,893	32,047	33,922	31,786
Lead-copper concentrate	tonnes	13,033	13,517	10,227	18,025	16,605
Lead content	"	4,833	4,671	3,018	5,126	5,034
Copper content	"	1,360	1,438	1,234	2,133	1,828
Gold content	'000 grams	711	788	750	1,260	1,038
Silver content	"	33,351	33,117	28,824	49,602	49,357
Sulphur content	tonnes	3,375	3,540	2,845	5,005	4,427
Zinc content	"	1,482	1,644	11,278	2,360	2,333

For footnotes see end of table.

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES, CONCENTRATES, ETC.: AUSTRALIA—*continued*

<i>Mineral</i>		1968-69	1969-70	1970-71	1971-72	1972-73
METALLIC MINERALS—<i>continued</i>						
Lead ore (<i>f</i>)	tonnes	53,251	41,352	36,333	31,284	39,760
Lead content	"	3,623	2,412	2,020	1,774	2,553
Copper content . . . . .	"	..	..	..	..	4
Gold content	'000 grams	1	..	..	..	..
Silver content	"	4,841	3,568	2,337	2,044	3,480
Zinc content	"	521	188	27	18	63
Lead-zinc middlings	tonnes	3,298	37,949	23,400	20,055	26,553
Lead content	"	925	9,504	6,560	4,910	5,733
Antimony content	"	5	60	22	26	34
Cadmium content	"	1	38	7	22	29
Copper content	"	14	209	92	133	175
Gold content	'000 grams	2	..	21	17	23
Silver content	"	2,924	39,644	24,660	16,746	23,880
Sulphur content	tonnes	345	6,768	1,749	4,309	5,515
Zinc content	"	376	8,142	5,109	5,373	8,038
Manganese ore—						
Metallurgical grade	tonnes	846,963	792,408	785,840	1,163,614	1,295,357
Manganese content	"	372,654	390,104	367,475	554,616	624,042
Other grades	tonnes	235	371	315	96	16
Manganese content	"	150	111	82	28	4
Mineral sands (<i>g</i>)—						
Ilmenite concentrate	tonnes	667,231	789,350	886,758	(h)705,259	(h)720,996
Titanium dioxide content	"	363,596	440,271	482,382	398,243	396,514
Leucoxene concentrate	tonnes	8,870	9,553	12,863	12,541	10,465
Titanium dioxide content	"	7,909	8,437	11,304	11,112	9,336
Monazite concentrate	tonnes	4,296	4,124	4,146	5,148	4,534
Monazite content	"	3,936	3,831	3,842	4,735	4,148
Rutile concentrate	tonnes	316,663	372,033	374,768	355,675	318,698
Titanium dioxide content	"	305,270	354,420	359,512	343,378	305,962
Xenotime concentrate	tonnes	39	103	42	14	17
Yttrium oxide content	kg	7,399	21,404	9,647	3,658	4,318
Zircon concentrate	tonnes	347,204	376,708	417,974	390,515	373,024
Zirconium dioxide content	"	227,688	250,070	277,877	258,767	247,545
Molybdenite concentrate	tonnes	48	117	61	18	..
Molybdenum disulphide	kg	40,653	99,319	51,818	15,676	..
content						
Nickel concentrate	tonnes	51,961	160,083	304,046	299,144	268,349
Nickel content	"	6,184	18,047	34,917	35,559	36,104
Cobalt content	"	101	173	336	167	203
Copper content	"	779	1,843	2,938	2,590	2,659
Palladium content	kg	15	..	28	..	..
Platinum content	"	10	17	..	..	..
Nickel ore	tonnes	..	..	..	..	(a)
Nickel content . . . . .	"	..	..	..	..	(a)
Pyrite concentrate	tonnes	134,935	154,758	235,355	261,481	198,096
Sulphur content	"	60,005	71,382	110,375	120,586	93,839
Gold content	kg	..	140	..	..	..
Silver content	"	..	28	..	..	..
Tantalite-colombite concentrate	kg	(a)	(a)	158,786	162,019	236,831
Tantalite-colombite content	"	(a)	(a)	63,230	76,217	84,744
Tin content	tonnes	19	..	(a)	..	..
Tin concentrates	tonnes	11,967	15,265	15,951	19,722	22,513
Tin content	"	7,380	8,543	8,749	10,912	11,625
Copper content	"	8	..	..	..	..
Tantalite-colombite content	kg	..	(a)	(a)	..	..
Tin-copper concentrate	tonnes	2,145	3,708	4,367	5,187	4,586
Tin content	"	137	163	174	157	129
Copper content	"	384	729	836	977	878

For footnotes see end of table.

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES, CONCENTRATES, ETC.: AUSTRALIA—*continued*

<i>Mineral</i>		1968-69	1969-70	1970-71	1971-72	1972-73
METALLIC MINERALS—<i>continued</i>						
Tungsten concentrates—						
Scheelite concentrate	tonnes	1,588	1,406	1,287	1,842	1,789
Tungstic oxide content	m.t.u.	113,327	100,544	90,374	135,347	131,973
Wolfram concentrate	tonnes	746	1,059	1,076	841	761
Tungstic oxide content	m.t.u.	52,402	75,353	75,681	61,025	55,528
Bismuth content	"	..	603	..	..	..
Wolfram ore	tonnes	..	..	..	..	122
Tungstic oxide content	m.t.u.	..	..	..	..	100
Zinc concentrate	tonnes	798,554	889,809	770,887	867,143	865,248
Zinc content	"	420,972	467,472	403,757	454,874	462,717
Cadmium content	"	1,479	1,253	1,369	1,520	1,547
Cobalt content	"	115	138	110	116	107
Copper content	"	869	1,018	900	1,167	1,226
Gold content	'000 grams	138	160	125	188	201
Lead content	tonnes	10,695	12,516	11,223	13,431	14,360
Manganese content	"	5,848	6,431	6,155	7,711	8,443
Mercury content	kg	1,566	1,466	662	483	512
Silver content	'000 grams	39,352	47,433	47,574	54,677	61,023
Sulphur content	tonnes	250,787	223,033	239,922	273,583	324,960
Zinc ore	tonnes	11,380	..	254	..	..
Zinc content	"	3,414	..	76	..	..
COAL						
Black coal	'000 tonnes	43,334	48,498	49,720	53,549	59,755
Semi-anthracite	"	25	7	1	..	..
Bituminous	"	39,656	44,762	46,460	50,340	56,444
Sub-bituminous	"	3,653	3,729	3,259	3,208	3,311
Brown coal (lignite)(i)	"	19,060	19,771	19,168	19,998	20,922
Brown coal briquettes	"	1,495	1,565	1,391	1,308	1,228
PETROLEUM (j)						
Crude oil	'000 cu m	2,237	4,871	14,937	19,038	20,669
Natural gas	mil. cu m	58	782	1,961	2,628	3,713
Natural gas condensate(k)	cu m	1	133	1,433	6,125	9,532
Ethane(e)	'000 cu m	..	481	5,380	3,087	27,436
Liquefied petroleum gases(l)—						
Propane	'000 cu m	..	16	347	577	798
Butane	'000 cu m	..	22	393	662	988
CONSTRUCTION MATERIALS(m)						
Sand	'000 tonnes	17,575	17,139	17,413	19,501	21,869
Gravel	"	11,240	12,168	12,993	12,871	14,520
Dimension stone	"	301	276	186	410	288
Crushed and broken stone	"	45,890	48,851	50,419	50,475	51,037
Other	"	24,280	28,860	28,208	26,405	42,113

For footnotes see end of table.

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES, CONCENTRATES, ETC.: AUSTRALIA—*continued*

<i>Mineral</i>		1968-69	1969-70	1970-71	1971-72	1972-73
OTHER NON-METALLIC MINERALS						
Asbestos	tonnes	745	747	751	3,077	32,358
Barite	"	46,310	39,977	54,008	23,750	23,175
Carbon dioxide	"	(a)	(a)	(a)	(a)	(a)
Clays—						
Brick and shale	'000 tonnes	7,385	7,678	7,078	7,872	8,098
Other(n)	"	1,224	1,470	1,410	1,209	1,321
Diatomite	tonnes	2,685	2,731	2,399	1,758	4,792
Dolomite	"	310,549	335,386	319,656	390,832	402,312
Felspar (including cornish stone)	"	5,833	3,648	3,382	2,948	2,916
Fluorspar	"	..	619	1,001	380	1,700
Garnet concentrate	"	328	336	422	525	111
Gypsum	"	938,050	861,700	952,901	1,010,573	961,717
Limestone (including shell and coral)	'000 tonnes	9,179	10,238	10,447	10,154	10,960
Lithium ores(o)	tonnes	830	777	739	1,930	695
Lithia (Li ₂ O) content	mtu	3,498	3,265	3,102	8,108	2,828
Magnesite, crude	tonnes	23,718	23,539	19,664	18,684	21,822
Mineral pigments—red ochre	"	664	42	702	23	625
Peat(p)	"	2,168	3,277	3,678	4,489	(a)
Pebbles—for grinding	"	1,117	1,350	1,677	1,927	1,509
Perlite	"	808	1,399	1,773	295	1,834
Phosphate rock	"	10,726	18,463	9,164	2,512	1,494
Pyrophyllite	"	1,964	5,080	6,828	6,972	12,718
Salt	'000 tonnes	1,022	2,054	3,774	3,503	3,671
Silica	tonnes	743,797	786,528	955,048	1,012,445	1,168,819
Sillimanite	"	1,939	1,174	1,139	654	654
Talc (including steatite and chlorite)	"	42,172	60,059	44,532	43,997	47,927
Vermiculite . . . . .	"	..	..	360	171	636

(a) Not available for publication. (b) Includes alluvial gold. (c) Includes iron concentrate. (d) For cement manufacture, coal washing, flux and gas purification. (e) Excludes Western Australian production. (f) Includes silver-lead ore, silver-lead slimes and lead slag. (g) Details relating to rutile-zircon concentrates produced in one State and finally separated in another State are included in separated form in the data of the State of origin. (h) Includes Beneficiated Ilmenite. (i) Excludes brown coal used for briquette production. (j) Source: Department of Minerals and Energy and State Mines Departments. (k) Sales—excludes condensate blended and other petroleum products. (l) Excludes refinery production. (m) Incomplete see individual States. (n) Incomplete owing to difficulties of coverage. (o) Used mainly for non-metallic purposes. (p) Comprises peat for fertiliser and peat moss.

NOTE. Particulars of the production of uranium concentrate are not available for publication.

CONTENTS OF METALLIC MINERALS PRODUCED, 1972-73

Contents of metallic minerals produced	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Alumina (Al ₂ O ₃)	'000 tonnes	4	2	(a)	..	(a)	..	(a)
Antimony	tonnes	1,583	(a)	..	..	..	..	(a)
Beryllium oxide (BeO)	mtu(b)	..	..	..	1,386	..	..	1,386
Bismuth	kg	..	..	..	..	..	355,449	355,449
Cadmium	tonnes	1,066	..	398	..	165	..	1,629
Cobalt	"	107	..	..	203	..	..	310
Copper	"	15,320	..	135,283	9,661	2,798	8,905	198,718
Gold	'000 grams	301	141	1,742	99	9,264	1,769	20,002
Iron(c)	'000 tonnes	..	..	..	4,307	40,693	(d)1,696	508
Lead	tonnes	239,773	..	122,149	(e)22	(f)	23,064	385,008
Manganese(g)	"	5,489	..	..	..	14,525	2,954	609,517
Manganese dioxide (MnO ₂)(h)	"	..	..	4	..	..	..	4
Mercury	kg	..	..	..	..	512	..	512
Monazite	tonnes	1,774	..	26	..	2,348	..	4,148
Nickel . . . . .	"	..	..	..	..	36,104	..	36,104
Selenium	kg	..	..	..	..	..	31	31
Silver	'000 grams	281,739	..	292,884	1,630	2,616	86,749	4,864
Sulphur(i)	tonnes	272,768	..	63,034	..	..	143,765	..
Tantalite-columbite (Ta ₂ O ₅ + Nb ₂ O ₅)	kg	..	..	..	..	84,744	..	84,744
Tin	tonnes	2,998	5	1,342	..	972	6,418	19
Titanium dioxide (TiO ₂)	"	213,571	..	94,336	990	402,915	..	711,812
Tungstic oxide (WO ₃)	mtu(b)	201	100	7,900	..	..	179,400	..
Yttrium oxide (Y ₂ O ₃)	kg	..	..	..	..	4,318	..	4,318
Zinc	tonnes	316,817	..	117,525	..	..	72,653	..
Zirconium dioxide (ZrO ₂)	"	161,403	..	48,805	..	37,337	..	..

(a) Not available for publication. (b) Metric ton unit (mtu) equals 10 kilograms. (c) Excludes iron content of iron oxide not intended for metal extraction. (d) Contained in iron concentrate. (e) Includes lead content of Western Australian lead concentrate. (f) Included with lead content of South Australian lead ore. (g) Content of metallurgical grade manganese ore and zinc concentrate. (h) Content of manganese ore of other than metallurgical grade. (i) Sulphur content of pyrite and other minerals from which sulphur is recovered.

CONTENTS OF METALLIC MINERALS PRODUCED: AUSTRALIA

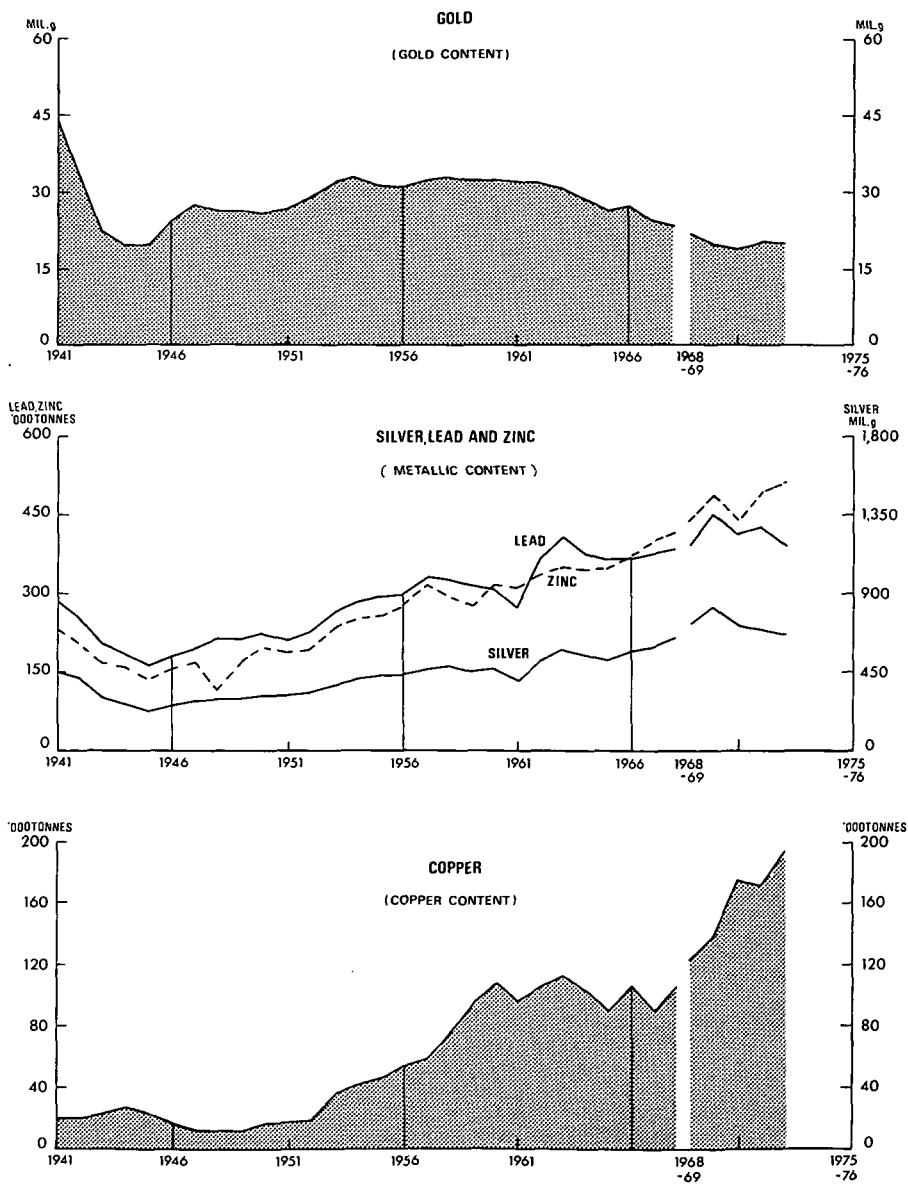
Contents of metallic minerals produced	1968-69	1969-70	1970-71	1971-72	1972-73
Alumina (Al ₂ O ₃)	'000 tonnes	(a)	(a)	(a)	(a)
Antimony	tonnes	868	969	1,386	1,120
Beryllium oxide (BeO)	mtu(b)	174	(a)	338	678
Bismuth	'000 grams	191,271	201,266	238,016	347,778
Cadmium	tonnes	1,541	1,339	1,465	1,625
Cobalt	"	216	311	446	283
Copper	"	125,306	142,322	172,965	171,920
Gold	'000 grams	22,711	20,605	19,103	23,253
Iron(c)	'000 tonnes	(d)20,831	(d)28,676	(d)36,107	(d)39,255
Lead	tonnes	417,663	459,357	416,432	420,797
Manganese(e)	"	378,502	396,535	373,630	562,327
Manganese dioxide (MnO ₂)(f)	"	150	111	82	28
Mercury	kg	1,566	1,466	662	483
Molybdenum disulphide (MoS ₂)	"	40,653	99,319	51,818	15,676
Monazite	tonnes	3,936	3,831	3,842	4,735
Nickel	"	6,184	18,047	34,917	35,559
Palladium	grams	9,979	482	1,758	..
Platinum	"	14,713	17,208	29,484	..
Selenium	tonnes	..	..	..	36
Silver	'000 grams	707,022	855,926	731,178	700,165
Sulphur(g)	tonnes	367,850	361,377	405,247	460,313
Tantalite-columbite (Ta ₂ O ₅ + Nb ₂ O ₅)	'000 grams	(a)	(a)	63,799	76,217
Tin	tonnes	7,536	8,706	8,923	11,070
Titanium dioxide (TiO ₂)	"	676,775	803,128	853,198	752,733
Tungstic oxide (WO ₃)	mtu(b)	165,729	175,897	166,061	196,372
Yttrium oxide (Y ₂ O ₃)	'000 grams	7,399	21,404	9,647	3,658
Zinc	tonnes	463,195	520,825	444,144	497,541
Zirconium dioxide (ZrO ₂)	"	227,688	250,070	277,877	258,767

(a) Not available for publication. (b) Metric ton unit (mtu) equals 10 kilograms. (c) Excludes iron content of iron oxide not intended for metal extraction. (d) Includes iron contained in iron concentrate. (e) Content of metallurgical grade manganese ore and zinc concentrate. (f) Content of manganese ore of other than metallurgical grade. (g) Sulphur content of pyrite and other minerals from which sulphur is recovered.

NOTE. Particulars of production of uranium oxide (U₃O₈) are not available for publication.

MINE PRODUCTION OF PRINCIPAL METALS: AUSTRALIA

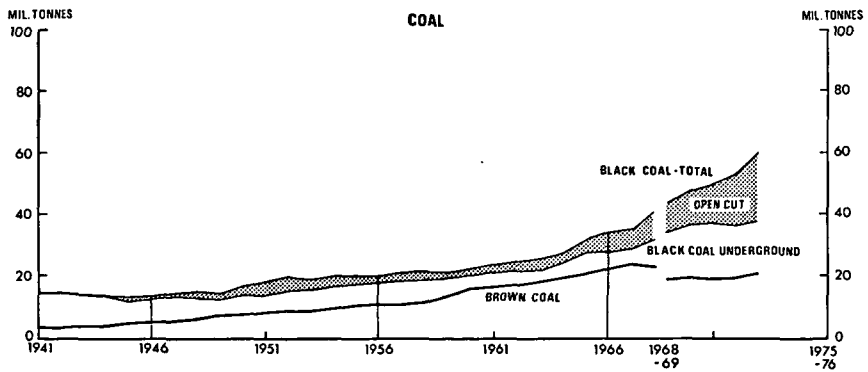
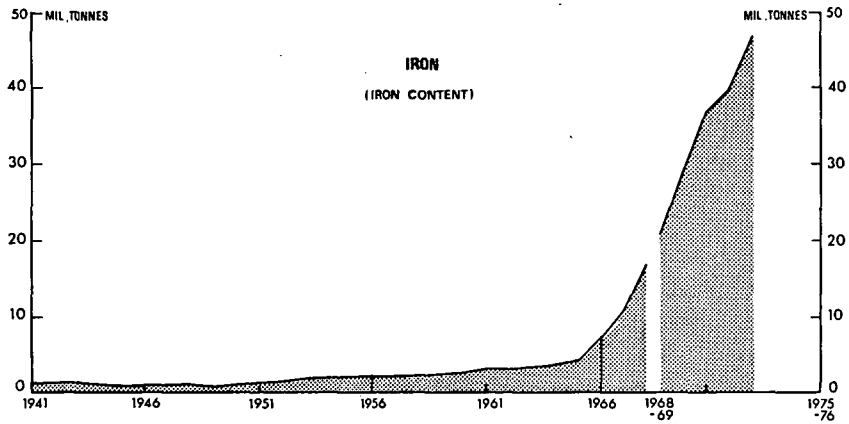
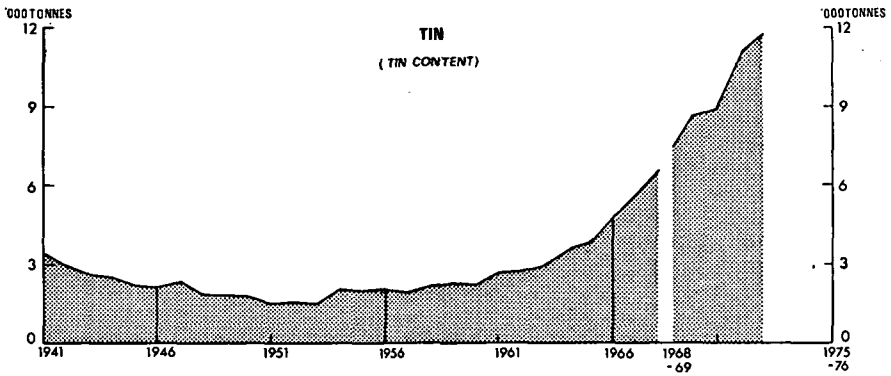
1941 TO 1972-73



Note. Prior to 1968-69 mineral figures were collected on a calendar year basis.

PLATE 56

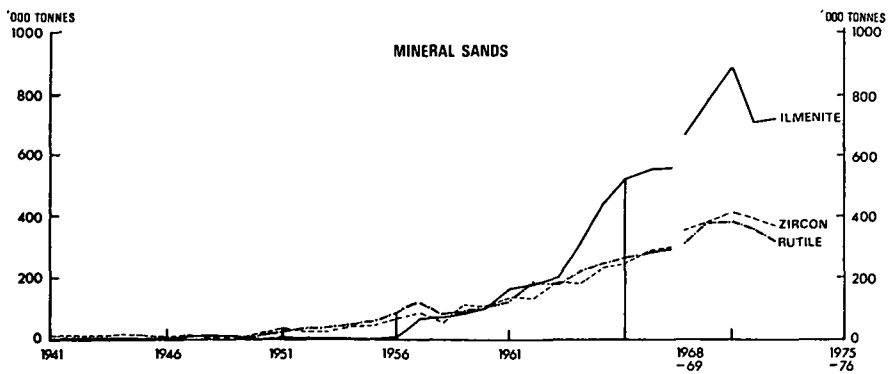
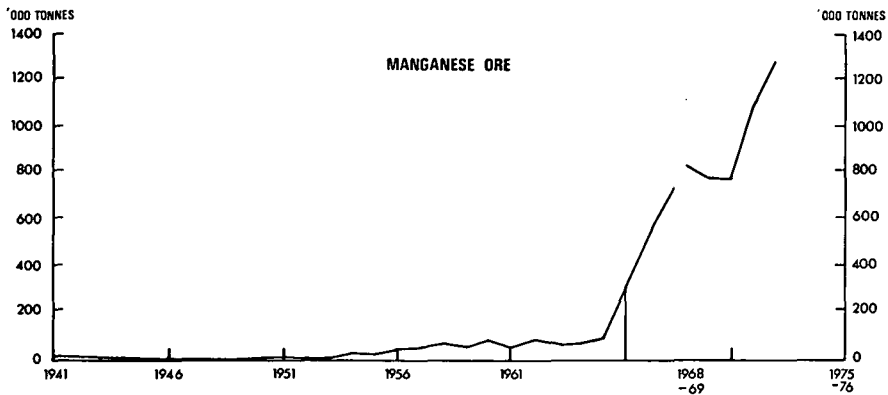
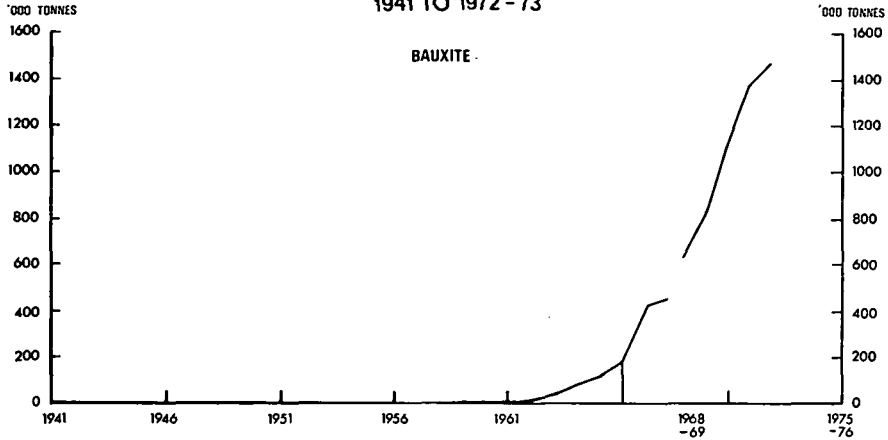
MINE PRODUCTION OF PRINCIPAL METALS AND PRODUCTION OF COAL AUSTRALIA 1941 TO 1972-73



Note. Prior to 1966-69 mineral figures were collected on a calendar year basis.

MINE PRODUCTION OF PRINCIPAL METALS: AUSTRALIA

1941 TO 1972 - 73



Note. Prior to 1968-69 mineral figures were collected on a calendar year basis.

Value of minerals produced

The following table shows the value of minerals produced in the past five years.

VALUE OF MINERALS PRODUCED: AUSTRALIA
(\$'000)

Mineral	1968-69	1969-70	1970-71	1971-72	1972-73
METALLIC MINERALS					
Antimony—					
Concentrate	83	84	422	176	546
Ore . . . . .	..	1	83	(a)	(a)
Bauxite	(a)	(a)	(a)	(a)	(a)
Beryllium ore	7	(a)	9	16	23
Bismuth concentrate	2,087	2,441	2,672	5,066	6,813
Copper—					
Concentrate	103,872	145,246	129,752	114,956	154,748
Ore(b)	2,073	2,874	(c)	947	701
Ore for fertiliser	136	97	18	6	9
Oxide . . . . .	..	..	..	475	757
Precipitate	352	232	148	134	101
Gold—					
Bullion(c)	22,919	19,945	17,779	21,435	25,730
Ore . . . . .	..	26	3	..	..
Iron ore	193,246	258,950	343,682	372,483	395,189
Iron oxide	542	645	754	773	1,150
Lead concentrate	80,598	99,507	75,825	(d)69,340	(d)72,060
Lead-copper concentrate	4,043	4,760	3,031	4,444	6,089
Lead ore(e)	797	463	398	321	494
Lead-zinc middlings	303	3,032	2,269	1,846	2,560
Manganese ore	10,734	9,680	10,852	(a)	(a)
Mineral sands—					
Ilmenite concentrate	5,380	6,638	7,434	(f)8,071	(f)8,155
Leucoxene concentrate	358	420	975	1,089	722
Monazite concentrate	501	493	530	608	551
Rutile concentrate	23,388	31,246	37,214	41,023	36,510
Xenotime concentrate	76	119	54	18	22
Zircon concentrate	11,481	11,827	13,207	12,503	11,821
Molybdenite concentrate	76	175	85	17	..
Nickel concentrate	(a)	(a)	(a)	(a)	(a)
Nickel ore . . . . .	..	..	..	..	(a)
Pyrite concentrate	1,713	1,473	2,190	2,230	139
Tantalite-columbite concentrate	(b)	(b)	936	835	670
Tin concentrate	19,199	26,744	25,533	30,406	32,282
Tin-copper concentrate	469	915	905	659	516
Tungsten ores and concentrates	6,725	8,753	9,044	7,979	5,550
Zinc concentrate	25,385	45,974	43,548	63,393	61,820
Zinc ore	112	..	2	..	..
<i>Total metallic minerals</i>	<i>562,804</i>	<i>761,600</i>	<i>845,423</i>	<i>921,642</i>	<i>995,366</i>
COAL					
Black coal	198,713	246,383	283,245	330,504	390,980
Brown coal (lignite)(g)	16,947	18,055	19,052	21,768	24,716
Brown coal briquettes	12,306	11,514	10,614	11,280	9,173
<i>Total coal</i>	<i>227,966</i>	<i>275,953</i>	<i>312,911</i>	<i>363,553</i>	<i>424,869</i>
PETROLEUM(h)					
Petroleum	40,098	88,532	216,722	271,981	311,903

For footnotes see next page.

VALUE OF MINERALS PRODUCED: AUSTRALIA—*continued*
(\$'000)

<i>Mineral</i>	1968-69	1969-70	1970-71	1971-72	1972-73
CONSTRUCTION MATERIALS^(f)					
<i>Construction materials</i>	117,113	134,638	144,708	159,031	170,484
OTHER NON-METALLIC MINERALS					
Asbestos	180	174	170	(j)453	3,256
Barite	409	437	476	202	208
Carbon dioxide	24	50	42	38	47
Clay—					
Brick clay and shale	7,042	7,682	7,105	8,408	9,355
Other clays	1,828	2,537	2,648	2,385	2,682
Diatomite	21	21	20	17	43
Dolomite	699	825	747	844	888
Felspar (including cornish stone)	57	49	45	38	35
Fluorspar	..	14	32	22	79
Garnet concentrate	5	4	6	8	2
Gems	9,261	14,541	17,830	27,262	40,911
Gypsum	2,351	2,238	2,577	2,819	2,826
Limestone (including shell and coral)	13,380	14,431	15,110	15,135	16,932
Lithium ores	13	12	12	30	11
Magnesite, crude	238	272	233	236	318
Mineral pigments—red ochre	10	1	7	..	10
Peat ^(k)	25	59	62	87	(a)
Pebbles—for grinding	17	24	30	38	36
Perlite	5	14	18	3	18
Phosphate rock	42	73	27	10	6
Pyrophyllite	22	45	68	58	112
Salt	4,246	7,947	11,563	11,804	12,655
Silica	1,775	2,542	3,276	3,555	4,484
Sillimanite	44	30	27	17	17
Talc (including steatite and chlorite)	617	946	732	782	(a)
Vermiculite	..	..	2	1	35
<i>Total other non-metallic minerals</i>	42,312	54,966	62,866	74,253	95,943
TOTAL					
Total, all minerals and construction materials	990,292	1,315,689	1,582,632	1,790,460	1,998,565
<i>Of which—</i>					
New South Wales	314,802	388,285	392,265	427,306	454,302
Victoria	69,007	112,604	249,422	312,375	349,973
Queensland	209,273	278,142	293,751	318,835	399,192
South Australia	72,159	85,005	92,524	94,169	116,807
Western Australia	234,973	339,959	446,507	510,409	536,414
Tasmania	59,163	77,631	74,169	81,972	84,863
Northern Territory	29,365	32,528	32,274	43,554	54,923
Australian Capital Territory	1,550	1,535	1,719	1,839	2,093

(a) Not available for publication. (b) Includes value of copper slag. (c) Includes alluvial gold. (d) Excludes value of Western Australian production. (e) Includes value of silver-lead ore, silver-lead slimes and lead slag. (f) Includes beneficiated ilmenite. (g) Excludes value of coal used in making briquettes. (h) The values shown are estimates based on prices prescribed in legislation quoted market prices and information from government departments. Includes values for crude oil, natural gas, natural gas condensate, ethane, propane and butane. (i) Incomplete owing to difficulties of coverage in some States. (j) Excludes Western Australian production. (k) Comprises peat for fertiliser and peat moss.

Foreign ownership and control of the mining industry in Australia

Set out below is a summary of the results of studies of foreign ownership and control of the mining industry in Australia for 1971-72 and 1972-73. These studies are the first conducted since the 1968 survey of overseas participation in Australian mining industry. For details of the 1968 study see Year Book No. 57, pages 932-5.

The statistics presented here are based on data collected in the Census of Mining Establishments for the financial years 1971-72 and 1972-73, and ownership and control characteristics as at 30 June 1972 and 30 June 1973 derived from information collected in the Survey of Overseas Investment. The figures for 1972-73 are based on the *preliminary* results of the 1972-73 Census of Mining Establishments.

The industry scope is the same as that of the Census of Mining Establishments, namely all of Division B, Mining, of the Australian Standard Industrial Classification (ASIC) excluding Sub-division 16, 'Services to mining' (which includes establishments mainly engaged in mineral exploration).

In the following tables the extent of foreign ownership and control is expressed in terms of *value added* (see page 968). Further details in terms of purchases, transfers in and selected expenses, turnover, fixed capital expenditure, wages and salaries, and employment, together with a more comprehensive treatment of the scope and conceptual basis of the statistics may be found in the bulletin *Foreign Ownership and Control of the Mining Industry, 1972-73*, (10.42).

Measurement of foreign ownership

In the foreign ownership statistics shown below, the classification by country is based on the country of domicile of the *immediate foreign owner* of the ordinary shares of the enterprise which operates (of which is connected to the enterprises which operates) the mining establishment. This may not necessarily correspond with the country of ultimate ownership as the immediate foreign owner may be a company which is in turn owned by residents of a different country.

VALUE ADDED APPORTIONED TO TOTAL FOREIGN OWNERSHIP, BY COUNTRY AND AUSTRALIAN OWNERSHIP

	Amount (\$ million)		Per cent	
	1971-72	1972-73	1971-72	1972-73
Foreign ownership—				
United Kingdom	233	251	16.2	15.7
U.S.A.	365	423	25.5	26.4
Other countries	99	120	6.9	7.5
<i>Total foreign ownership</i>	<i>698</i>	<i>794</i>	<i>48.7</i>	<i>49.6</i>
Australian ownership	736	807	51.3	50.4
Total	1,434	1,601	100.0	100.0

FOREIGN OWNERSHIP AND CONTROL OF THE MINING
INDUSTRY IN AUSTRALIA

967

VALUE ADDED APPORTIONED TO DIRECT FOREIGN OWNERSHIP
OTHER IDENTIFIED FOREIGN OWNERSHIP, AND AUSTRALIAN OWNERSHIP
BY INDUSTRY CLASS

	Amount (\$ million)		Per cent	
	1971-72	1972-73	1971-72	1972-73
METALLIC MINERALS (ASIC SUB-DIVISION 11)				
Apportioned to direct foreign ownership	287	311	38.1	37.7
Apportioned to other identified foreign ownership	116	121	15.4	14.7
Total foreign ownership	403	431	53.4	52.3
Apportioned to Australian ownership	351	393	46.6	47.7
<i>Total</i>	<i>754</i>	<i>824</i>	<i>100.0</i>	<i>100.0</i>
TOTAL COAL AND CRUDE PETROLEUM (including NATURAL GAS) (ASIC SUB-DIVISIONS 12 and 13)				
Apportioned to direct foreign ownership	237	295	43.2	46.3
Apportioned to other identified foreign ownership	43	49	7.8	7.7
Total foreign ownership	280	344	51.1	54.0
Apportioned to Australian ownership	268	293	48.9	46.0
<i>Total</i>	<i>548</i>	<i>637</i>	<i>100.0</i>	<i>100.0</i>
TOTAL CONSTRUCTION MATERIALS (ASIC SUB-DIVISION 14)				
Apportioned to direct foreign ownership	1	1	1.0	0.9
Apportioned to other identified foreign ownership	8	7	7.7	6.6
Total foreign ownership	8	8	7.7	7.5
Apportioned to Australian ownership	96	98	92.3	92.5
<i>Total</i>	<i>104</i>	<i>106</i>	<i>100.0</i>	<i>100.0</i>
TOTAL OTHER NON-METALLIC MINERALS (ASIC SUB-DIVISION 15)				
Apportioned to direct foreign ownership	5	9	18.5	26.5
Apportioned to other identified foreign ownership	1	2	3.7	5.9
Total foreign ownership	6	11	22.2	32.4
Apportioned to Australian ownership	21	23	77.8	67.6
<i>Total</i>	<i>27</i>	<i>34</i>	<i>100.0</i>	<i>100.0</i>
TOTAL MINING (ASIC SUB-DIVISIONS 11-15)				
Apportioned to direct foreign ownership	530	615	37.0	38.4
Apportioned to other identified foreign ownership	168	179	11.7	11.2
Total foreign ownership	698	794	48.7	49.6
Apportioned to Australian ownership	736	807	51.3	50.4
<i>Total</i>	<i>1,434</i>	<i>1,601</i>	<i>100.0</i>	<i>100.0</i>

**VALUE ADDED APPORTIONED TO DIRECT FOREIGN OWNERSHIP BY EXTENT OF
DIRECT FOREIGN OWNERSHIP, OTHER IDENTIFIED FOREIGN OWNERSHIP
AND AUSTRALIAN OWNERSHIP**

	<i>Amount (\$ million)</i>		<i>Per cent</i>	
	<i>1971-72</i>	<i>1972-73</i>	<i>1971-72</i>	<i>1972-73</i>
Apportioned to direct foreign ownership—				
Extent of direct foreign ownership—				
Less than 50 per cent	58	52	4.0	3.2
50 per cent and less than 75 per cent	219	339	15.3	21.2
75 per cent and over	253	224	17.6	14.0
<i>Total</i>	<i>530</i>	<i>615</i>	<i>37.0</i>	<i>38.4</i>
Apportioned to other identified foreign ownership	168	179	11.7	11.2
Total foreign ownership	698	794	48.7	49.6
Apportioned to Australian ownership	736	807	51.3	50.4
<i>Total</i>	<i>1,434</i>	<i>1,601</i>	<i>100.0</i>	<i>100.0</i>

Measurement of foreign control

The basis of the country classification used for the foreign control statistics shown below is the country of domicile of the direct foreign investor. When an enterprise in Australia has direct foreign investors in more than one country, mining establishments owned by that enterprise are classified on the basis of the country of domicile of those direct foreign investors which together account for the largest percentage of direct foreign ownership.

**NUMBER AND VALUE ADDED OF MINING ESTABLISHMENTS OF FOREIGN CONTROLLED
ENTERPRISES BY COUNTRY, AND AUSTRALIAN CONTROLLED ENTERPRISES**

	<i>Establishments, etc.</i>				<i>Value added</i>			
	<i>Number</i>		<i>Per cent</i>		<i>Amount (\$m)</i>		<i>Per cent</i>	
	<i>1971-72</i>	<i>1972-73</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1971-72</i>	<i>1972-73</i>
Establishments of foreign controlled enterprises—								
United Kingdom	53	58	3.7	4.4	240	218	16.7	13.6
U.S.A.	37	38	2.6	2.9	494	641	34.4	40.0
Other Countries	30	30	2.1	2.3	45	57	3.1	3.6
<i>Total</i>	<i>120</i>	<i>126</i>	<i>8.4</i>	<i>9.5</i>	<i>779</i>	<i>916</i>	<i>54.3</i>	<i>57.2</i>
Establishments of Australian controlled enterprises	1,306	1,199	91.6	90.5	655	685	45.7	42.8
<i>Total</i>	<i>1,426</i>	<i>1,325</i>	<i>100.0</i>	<i>100.0</i>	<i>1,434</i>	<i>1,601</i>	<i>100.0</i>	<i>100.0</i>

NUMBER AND VALUE ADDED OF MINING ESTABLISHMENTS OF FOREIGN CONTROLLED
ENTERPRISES AND AUSTRALIAN CONTROLLED ENTERPRISES, BY INDUSTRY GROUP

	<i>Establishments, etc.</i>				<i>Value added</i>			
	<i>Number</i>		<i>Per cent</i>		<i>Amount (\$m)</i>		<i>Per cent</i>	
	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73
TOTAL METALLIC MINERALS (ASIC SUB-DIVISION 11)								
Establishments of foreign controlled enterprises	49	48	17.6	21.1	398	447	52.8	54.2
Establishments of Australian controlled enterprises	229	180	82.4	78.9	356	377	47.2	45.8
<i>Total</i>	<i>278</i>	<i>228</i>	<i>100.0</i>	<i>100.0</i>	<i>754</i>	<i>824</i>	<i>100.0</i>	<i>100.0</i>
TOTAL COAL AND CRUDE PETROLEUM (including NATURAL GAS) (ASIC SUB-DIVISIONS 12 AND 13)								
Establishments of foreign controlled enterprises	43	45	29.7	33.6	374	455	68.2	71.4
Establishments of Australian controlled enterprises	102	89	70.3	66.4	174	182	31.8	28.6
<i>Total</i>	<i>145</i>	<i>134</i>	<i>100.0</i>	<i>100.0</i>	<i>548</i>	<i>637</i>	<i>100.0</i>	<i>100.0</i>
TOTAL CONSTRUCTION MATERIALS (ASIC SUB-DIVISION 14)								
Establishments of foreign controlled enterprises	9	11	1.2	1.6	1	2	1.0	1.9
Establishments of Australian controlled enterprises	717	691	98.8	98.4	103	104	99.0	98.1
<i>Total</i>	<i>726</i>	<i>702</i>	<i>100.0</i>	<i>100.0</i>	<i>104</i>	<i>106</i>	<i>100.0</i>	<i>100.0</i>
TOTAL OTHER NON-METALLIC MINERALS (ASIC SUB-DIVISION 15)								
Establishments of foreign controlled enterprises	19	22	6.9	8.4	6	11	22.2	32.4
Establishments of Australian controlled enterprises	258	239	93.1	91.6	21	23	77.8	67.6
<i>Total</i>	<i>277</i>	<i>261</i>	<i>100.0</i>	<i>100.0</i>	<i>27</i>	<i>34</i>	<i>100.0</i>	<i>100.0</i>
TOTAL MINING (ASIC SUB-DIVISIONS 11-15)								
Establishments of foreign controlled enterprises	120	126	8.4	9.5	779	916	54.3	57.2
Establishments of Australian controlled enterprises	1,306	1,199	91.6	90.5	655	685	45.7	42.8
<i>Total</i>	<i>1,426</i>	<i>1,325</i>	<i>100.0</i>	<i>100.0</i>	<i>1,434</i>	<i>1,601</i>	<i>100.0</i>	<i>100.0</i>

NUMBER AND VALUE ADDED OF MINING ESTABLISHMENTS OF FOREIGN CONTROLLED ENTERPRISES BY EXTENT OF DIRECT FOREIGN OWNERSHIP, AND AUSTRALIAN CONTROLLED ENTERPRISES BY EXTENT OF FOREIGN OWNERSHIP

	<i>Establishments, etc.</i>				<i>Value added</i>			
	<i>Number</i>		<i>Per cent</i>		<i>Amount (\$m)</i>		<i>Per cent</i>	
	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73
Establishments of foreign controlled enterprises—Extent of direct foreign ownership—								
Less than 50 per cent	25	23	1.8	1.7	116	86	8.1	5.4
50 per cent and less than 75 per cent	44	51	3.1	3.8	373	589	26.0	36.8
75 per cent and over	51	52	3.6	3.9	289	241	20.2	15.1
Total	120	126	8.4	9.5	779	916	54.3	57.2
Establishments of Australian controlled enterprises—Extent of foreign ownership—								
Less than 25 per cent	1,258	1,181	88.2	89.1	403	500	28.1	31.2
25 per cent and over	48	18	3.4	1.4	252	185	17.6	11.6
Total	1,306	1,199	91.6	90.5	655	685	45.7	42.8
Total	1,426	1,325	100.0	100.0	1,434	1,601	100.0	100.0

Mineral exploration (other than for petroleum)

Definition

Mineral exploration (other than for petroleum) consists of the search for, and/or appraisal of, new ore occurrences and known deposits of minerals (including extensions to deposits being worked) by geological, geophysical, geochemical, and other methods (including drilling). Exploration for water is excluded. The construction of shafts and adits is included if primarily for exploration purposes. Excluded are mine development activities (which include the construction of drives, shafts, winzes, etc.) in underground mines and the preparation of quarrying sites for open-cut extraction (including overburden removal) carried out primarily for the purpose of commencing or extending mining and quarrying operations. Mine development activities (including mines under development) are included in the scope of the annual mining census.

Sources of statistics

The statistics of exploration for minerals *other than petroleum* are derived from the annual mineral exploration census, which is carried out by The Bureau of Statistics in each State and the Northern Territory, except in New South Wales where the census is conducted jointly with the State Mines Department.

Period covered

For 1968 and earlier years the annual mineral exploration census (excluding petroleum exploration) related to years ended 31 December. As from 1968-69, the reporting period for this census has related to years ended 30 June, to conform with a similar change in the annual mining census.

Scope of mineral exploration census

The scope of the census comprises the following activities.

(a) *Private exploration*—relates to exploration carried out by private enterprises and by business undertakings operated by State and local government authorities. Private exploration is further divided as follows.

(i) *Exploration on production leases*—relates to exploration carried out on the production lease by mines currently producing or under development for production of minerals. Mines included in this section of the mineral exploration census are also included in the annual mining census (see the statistical bulletin *Mining Establishments—Details of Operations* (Reference No. 10.60) for further details).

- (ii) *Exploration on other licensed areas*—relates to exploration carried out on areas covered by exploration licences, authorities to enter, authorities to prospect, and similar licences and authorities issued by State governments for exploration for minerals.
- (iii) *Other exploration*—relates to exploration which is not directly connected with areas under lease, licence, etc. This category includes expenditure on general surveys, aerial surveys, report writing, map preparation and other off-site activities not directly attributable to particular lease or licence areas.
- (b) *Exploration by government*—relates to exploration for minerals carried out by—
- (i) Australian Government (Bureau of Mineral Resources, Geology and Geophysics, and Joint Coal Board), and
- (ii) State Mines Departments and the Mines Branch of the Department of the Northern Territory.

Employment in mineral exploration

In censuses prior to 1970-71 employment data were classified to one of the two categories: 'professional persons', and 'non-professional persons'. Employment data for working proprietors and working partners were, however, included in either one or the other of these categories. From 1970-71 separate details of man-weeks worked by 'working proprietors and working partners' were collected and are shown separately in the table on page 972.

Expenditure, employment, footage drilled, etc., States and Northern Territory

The following tables show expenditure, employment and footage drilled, etc., on mineral exploration other than for petroleum during the last five years.

MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)

EXPENDITURE ^(a)					
(\$'000)					
	1968-69	1969-70	1970-71	1971-72	1972-73
PRIVATE EXPLORATION					
New South Wales	7,272	16,562	21,238	15,093	12,673
Victoria	1,600	2,353	1,853	1,258	1,939
Queensland	18,018	25,078	32,662	22,119	15,465
South Australia	2,961	5,760	6,220	4,057	5,263
Western Australia	35,412	59,821	86,082	62,823	51,121
Tasmania	2,408	3,299	4,397	3,478	3,392
Northern Territory	4,891	5,241	8,610	8,233	9,885
<i>Total</i>	<i>72,562</i>	<i>118,115</i>	<i>161,063</i>	<i>117,061</i>	<i>99,738</i>
GOVERNMENT EXPLORATION					
Australian Government ^(b)	3,591	3,995	3,928	4,603	5,061
State Mines Departments	2,939	2,708	3,386	3,732	4,341
<i>Total</i>	<i>6,530</i>	<i>6,704</i>	<i>7,314</i>	<i>8,334</i>	<i>9,402</i>
TOTAL EXPENDITURE					
On drilling	26,196	33,522	45,106	32,905	29,073
Other	52,896	91,296	123,272	92,490	80,067
<i>Australia</i>	<i>79,092</i>	<i>124,818</i>	<i>168,377</i>	<i>125,396</i>	<i>109,140</i>

For footnotes see next page.

MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)—*continued*

EMPLOYMENT(c) (^{'000} man-weeks worked)					
	1968-69	1969-70	1970-71	1971-72	1972-73
PRIVATE EXPLORATION					
New South Wales	26.2	30.7	40.7	31.8	26.7
Victoria	6.3	5.7	5.1	3.4	5.1
Queensland	36.5	48.4	60.7	44.6	31.8
South Australia	9.2	10.9	11.2	9.0	7.6
Western Australia	67.5	103.3	135.5	114.5	96.1
Tasmania	7.4	8.8	11.4	7.5	7.5
Northern Territory	10.8	12.7	17.4	18.3	19.6
<i>Total</i>	163.9	220.5	282.1	229.0	194.3
GOVERNMENT EXPLORATION					
Australian(b)	11.7	16.5	18.1	14.5	16.3
State Mines Departments	17.0	20.9	21.1	22.8	23.7
<i>Total</i>	28.7	37.4	39.2	37.3	40.0
TOTAL					
By working proprietors and working partners	(d)	(d)	7.2	4.6	2.6
By professional persons(e)	57.6	73.1	94.5	94.4	90.4
By non-professional persons(f)	135.0	184.8	219.5	167.3	141.3
<i>Australia</i>	192.6	257.9	321.2	266.3	234.3
FOOTAGE DRILLED, SUNK OR DRIVEN(g) (^{'000} metres)					
PRIVATE EXPLORATION					
New South Wales	349	466	505	376	307
Victoria	43	42	30	19	27
Queensland	570	597	853	580	611
South Australia	76	187	199	123	343
Western Australia	760	1,934	2,030	2,030	1,410
Tasmania	54	59	94	67	65
Northern Territory	107	89	136	114	177
<i>Total</i>	1,960	3,373	3,849	3,308	2,938
GOVERNMENT EXPLORATION					
Australian(b)	7	8	3	2	..
State Mines Departments	96	86	84	71	70
<i>Total</i>	102	95	86	73	70
TOTAL FOOTAGE DRILLED, SUNK OR DRIVEN					
Drilled—core	805	928	949	794	769
non-core	1,194	2,469	2,811	2,514	2,181
Sunk or driven	64	71	175	73	58
<i>Australia</i>	2,063	3,468	3,935	3,381	3,008

(a) Expenditure whether charged as working expenses or capitalised. (b) Bureau of Mineral Resources and Joint Coal Board. (c) Operator and staff only (includes time spent on report writing and similar off-site activities associated with exploration); excludes contractors and their employees. (d) Not collected separately prior to 1970-71. Included in professional and non-professional employment. *see text page 971.* (e) Geologists, geophysicists, engineers, etc., engaged on exploration work. (f) Drill operators, field hands, etc. (g) 'Sunk or driven' relates to shafts, winzes, etc., sunk, and drives, adits, etc., driven.

Petroleum exploration

Source of statistics

These statistics were collected and compiled by the Bureau of Mineral Resources, Geology and Geophysics, Canberra. Statistical and other information relating to petroleum exploration is published by the Bureau of Mineral Resources in *The Petroleum Newsletter* (issued quarterly) and *The Australian Mineral Industry—Annual Review*.

Scope

Petroleum exploration consists of the search for, and/or appraisal of, deposits of crude oil and/or natural gas and natural gas liquids by geological, geophysical, geochemical, and other exploration methods, including drilling. Included in the expenditure are the costs of drilling exploratory oil and/or gas wells and the testing of such wells. Also included are the cost of access roads, site construction, permits, licences and similar fees, relevant office buildings and furniture, transportation equipment, storage facilities, plant and equipment, and review work, where these are undertaken primarily for purposes of exploration for deposits of petroleum. Details of developmental oil and/or gas wells are excluded.

Operations

The following tables show particulars of expenditure, and wells and footage drilled in petroleum exploration in recent years.

**EXPENDITURE ON PETROLEUM EXPLORATION BY PRIVATE ENTERPRISE
AND BY GOVERNMENTS: AUSTRALIA
(\$'000)**

	1968	1969	1970	1971	1972
PRIVATE SOURCES(a)					
Utilised in—					
New South Wales	1,126	2,473	2,597	287	200
Victoria	19,538	18,415	11,538	1,453	15,076
Queensland	5,183	7,058	5,474	3,011	3,085
South Australia	2,979	3,669	6,431	7,084	9,804
Western Australia	21,532	26,194	29,557	41,872	57,903
Tasmania	999	1,837	4,708	1,939	991
Northern Territory	6,222	7,064	13,753	17,250	10,350
<i>Total</i>	<i>57,579</i>	<i>66,711</i>	<i>74,059</i>	<i>72,896</i>	<i>97,408</i>
GOVERNMENT SOURCES					
Payments under <i>Petroleum Search Subsidy Act</i> 1959-1969—					
Utilised in—					
New South Wales	474	548	406	225	64
Victoria	1,940	441	732	231	570
Queensland	1,419	1,524	1,623	500	367
South Australia	1,407	609	923	537	611
Western Australia	4,027	6,286	4,604	3,599	4,209
Tasmania	497	903	395	208	16
Northern Territory	1,448	2,561	1,061	695	380
<i>Total subsidy payments</i>	<i>11,213</i>	<i>12,871</i>	<i>9,744</i>	<i>5,986</i>	<i>6,218</i>
Utilised for—					
Geophysical	3,590	3,557	2,924	2,470	3,230
Drilling	7,622	9,315	6,820	3,517	2,987
Other Government sources—					
Australian Government(a)	4,756	4,238	3,841	4,696	4,748
State Mines Departments	783	832	456	458	564
<i>Total other Government sources</i>	<i>5,540</i>	<i>5,070</i>	<i>4,296</i>	<i>5,155</i>	<i>5,312</i>
<i>Total Government sources</i>	<i>16,752</i>	<i>17,941</i>	<i>14,040</i>	<i>11,140</i>	<i>11,530</i>
TOTAL FUNDS, PRIVATE AND GOVERNMENT					
<i>Grand total</i>	<i>74,330</i>	<i>84,652</i>	<i>88,099</i>	<i>84,037</i>	<i>108,938</i>

(a) Excludes payments under the *Petroleum Search Subsidy Act* 1959-1969.

**SUMMARY OF EXPLORATION WELLS AND METRES DRILLED IN PETROLEUM
EXPLORATION, 1972**

		<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>Total</i>
Wells—									
Drilled (i.e. those which reached final depth)—									
As oil producers	No.	..	..	..	1	2	..	..	3
As gas producers	No.	..	..	3	8	6	..	..	17
Plugged and abandoned	No.	1	11	16	8	37	4	5	82
Total	No.	1	11	19	17	45	4	5	102
Average final depth of wells drilled	m	1,148	2,206	1,200	2,620	2,016	2,993	2,159	2,213
Drilling still in progress at 31 December (uncompleted holes)	No.	..	1	..	1	6	..	1	9
Wells drilled or drilling over 3,000 metres	No.	..	..	1	3	16	..	..	20
Metres drilled—									
Completed wells	m	1,148	24,266	26,024	41,916	88,717	11,971	10,794	204,836
Uncompleted holes	m	..	890	..	2,831	14,787	..	1,087	19,595
Total	m	1,148	25,156	26,024	44,747	103,504	11,971	11,881	224,431

**SUMMARY OF EXPLORATION WELLS AND METRES DRILLED IN PETROLEUM
EXPLORATION: AUSTRALIA**

		<i>1968</i>	<i>1969</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>
Wells—						
Drilled (i.e. those which reached final depth)—						
As oil producers	No.	1	..	2	1	3
As gas producers	No.	4	6	15	12	17
Plugged and abandoned	No.	78	101	108	62	82
Total	No.	83	107	125	75	102
Average final depth of wells drilled	m	1,870	1,881	1,634	2,274	2,213
Drilling still in progress at 31 December (uncompleted holes)	No.	8	11	8	8	9
Wells drilled or drilling over 3,000 metres	No.	13	24	19	23	20
Metres drilled—						
Completed wells	m	138,171	184,307	192,552	153,344	204,836
Uncompleted holes	m	17,596	21,617	16,066	15,199	19,595
Total	m	155,767	205,924	208,618	168,543	224,431

Mineral processing and treatment

The extraction of minerals from ore deposits, as in mining and quarrying, is only part of the wider field of mineral technology. It is only in rare instances that minerals can be used directly in the form in which they are produced by mines, and, much more commonly, minerals must undergo considerable processing and treatment before their full utility and value can be realised. Examples of this processing and treatment are the smelting and refining of metals, the production of coke from coal, the refining of oil, and the treatment of non-metallic minerals as in the production of superphosphate and other chemicals and building materials like bricks and cement. The sectors of the economy which carry out this work are classified for statistical purposes to the manufacturing industry, and particulars relating to those activities which principally involve mineral processing and treatment—i.e. the treatment of non-metalliferous mine and quarry products, the manufacture of mineral oils and chemical fertilisers, the smelting, converting, refining and rolling of iron and steel, the extracting and refining of other metals, and the manufacture of alloys are given in Chapter 21, Manufacturing Industry.

Principal products

The following table shows particulars of the production of certain important manufactured products of mineral origin during recent years.

**PRODUCTION OF PRINCIPAL MANUFACTURED PRODUCTS
OF MINERAL ORIGIN: AUSTRALIA**

<i>Commodity</i>		1968-69	1969-70	1970-71	1971-72	1972-73
METALS(a)						
Non-ferrous—						
Alumina	tonnes	1,617,346	2,027,495	2,404,651	2,825,588	3,497,820
Refined aluminium	"	111,763	168,368	218,244	212,461	207,531
Blister copper(b)	"	111,341	110,599	130,199	144,791	149,355
Refined copper	"	96,252	105,344	115,321	130,827	136,435
Lead bullion (for export)(b)	"	134,340	171,719	179,424	141,582	138,925
Refined lead	"	178,482	188,341	154,937	190,638	173,561
Refined zinc	"	231,860	261,809	253,761	274,245	299,433
Refined tin	"	4,024	4,711	5,942	6,391	7,301
Ferrous—						
Pig iron(c)	'000 tonnes	5,795	5,956	6,240	6,006	7,182
Steel ingots(c)	"	6,813	7,086	6,800	6,585	7,235
Precious—						
Refined gold(d)	'000 grams	19,345	16,401	14,426	16,394	14,689
Refined silver	"	293,241	329,120	253,852	273,142	248,550
FUELS						
Coal products—						
Metallurgical coke	'000 tonnes	3,706	4,033	4,542	4,189	4,925
Brown coal briquettes	"	1,495	1,564	1,398	1,308	1,221
Petroleum products—						
Motor spirit	mil. litres	9,197	9,592	10,138	10,609	11,157
Furnace fuel	'000 tonnes	6,211	6,083	5,791	5,015	5,042
Automotive distillate	"	2,620	2,898	3,177	3,426	3,707
Industrial diesel fuel	"	1,055	1,097	1,120	1,112	1,055
BUILDING MATERIALS						
Clay bricks	millions	1,627	1,694	1,669	1,744	1,874
Portland cement	'000 tonnes	4,140	4,499	4,685	4,884	5,037
Plaster of paris	"	287	303	309	315	344
Plaster sheets	'000 sq m	26,602	30,211	34,365	34,591	39,796
CHEMICALS						
Sulphuric acid	'000 tonnes	1,881	1,762	1,612	1,756	2,265
Caustic soda	tonnes	107,171	112,436	119,678	127,857	121,610
Superphosphate(e)	'000 tonnes	3,882	3,579	3,115	3,612	4,918

(a) Excludes secondary metal with the exception of pig iron and steel ingots. (b) Metallic content. (c) Year ended 31 May. (d) Newly-won gold of Australian origin. (e) Includes double and triple superphosphate and ammonium phosphate expressed in terms of single superphosphate i.e. 22% P₂O₅ equivalent.

Overseas trade

Exports and imports

Data of imports and exports of minerals and mineral products have been extracted from the official trade statistics compiled in the Australian Bureau of Statistics. Particulars of the quantities and values (\$f.o.b. port of shipment) of the principal minerals and mineral products exported from and imported into Australia during recent years are shown in the following table.

**EXPORTS AND IMPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS
AUSTRALIA**

Commodity(a)	Quantity			Value (\$'000 f.o.b.)			
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73	
EXPORTS(b)							
Non-ferrous—							
Copper—							
Concentrate	tonnes	140,218	141,395	164,451	32,031	27,298	32,267
Blister	"	6,972	5,868	7,728	8,992	6,643	9,896
Refined	"	36,014	56,519	49,967	35,521	51,395	44,729
Matte, slags, etc.	"	8,371	5,210	9,829	3,332	1,571	2,640
Lead—							
Concentrate	"	83,096	93,537	74,145	16,290	15,961	12,441
Bullion	"	179,811	137,865	142,270	56,455	38,279	44,940
Refined	"	123,155	130,345	149,691	29,023	28,230	36,400
Slags and residues	"	3,035	2,342	6,628	586	423	1,064
Zinc—							
Concentrate	"	387,334	364,147	289,836	25,739	26,184	21,508
Refined	"	136,664	190,428	203,777	35,671	56,825	61,979
Slags and residues	"	5,853	5,809	5,011	513	504	617
Tin—							
Concentrate	"	6,343	9,249	11,290	7,636	11,963	11,739
Refined	"	1,450	2,156	3,939	4,535	6,573	12,026
Aluminium—							
Alumina	'000 tonnes	1,807	2,626	2,966	95,125	132,042	155,453
Refined	tonnes	79,661	96,313	81,344	35,962	38,886	30,767
Ferrous and alloy—							
Iron ore—							
Pellets	'000 tonnes	5,628	5,420	7,987	62,802	58,274	76,494
Fines	"	13,478	18,081	25,178	81,101	105,885	126,313
Lump	"	29,215	26,738	33,171	231,485	211,330	236,285
Tungsten—							
Scheelite concentrate	tonnes	1,224	1,789	1,553	3,607	4,332	3,019
Wolfram concentrate	"	1,002	736	818	4,100	2,066	1,734
Pig iron	"	389,722	527,856	687,124	21,587	23,581	27,286
Steel ingots, blooms	"	117,210	296,275	743,169	9,596	18,967	48,377
Mineral sands—							
Ilmenite concentrate	"	641,060	530,933	521,823	6,471	5,628	5,731
Rutile concentrate	"	380,922	314,770	338,760	36,399	36,116	39,750
Zircon concentrate	"	363,160	364,343	419,962	13,200	13,038	15,131
Precious—							
Gold, refined	'000 grams	2,250	3,718	10,136	2,305	4,573	18,239
Silver, refined	"	247,586	211,574	181,014	12,237	9,033	8,731
Coal, black	'000 tonnes	18,997	21,826	25,751	193,725	237,592	290,703
Crude oil(c)	'000 cu m	1,091	241	330	2,760	14,207	4,910

IMPORTS

Tin, refined	tonnes	119	104	65	376	325	203
Nickel (pigs, anodes, etc.)	"	2,138	1,241	1,060	8,781	3,178	2,677
Ferro-alloys	"	37,841	27,941	27,203	11,660	8,234	7,801
Gold—							
Unrefined bullion(d)	'000 grams	3,212	3,201	3,091	3,416	3,804	5,205
Refined	"	254	17	160	232	27	233
Crude oil(e)	'000 cu m	13,689	10,960	9,316	121,325	115,101	99,384
Asbestos	tonnes	71,681	61,665	62,905	10,705	9,852	9,909
Diamonds—							
Industrial	metric carats	744,802	567,075	807,960	3,106	2,360	3,099
Gemstone	"	49,847	44,016	59,416	6,573	6,331	9,346
Phosphate rock	'000 tonnes	2,108	1,642	2,282	22,174	18,157	22,647
Potassium fertilisers	tonnes	153,268	145,911	165,412	4,793	4,118	4,701
Sulphur	"	273,341	276,745	498,275	4,906	4,637	6,660

(a) In addition to the commodities listed, significant quantities of bauxite and nickel ores and concentrates are exported but details are not available for publication. (b) Quantities shown for metallic minerals are gross quantities, not metallic contents. (c) Includes also partly refined oil, topped crudes and enriched crudes. (d) Gold content. (e) Includes also partly refined oil, topped crudes, enriched crudes and refinery feed stock.

Considerable quantities of metallic ores, concentrates, slags, and residues are exported from Australia for refining overseas. The following table shows selected items exported during 1972-73 and their principal metallic content as estimated by assay.

**PRINCIPAL METALLIC CONTENTS OF SELECTED ORES AND CONCENTRATES
ETC., EXPORTED FROM AUSTRALIA, 1972-73**

Ores and concentrates, etc.	Metallic contents—estimated from assay							
	Copper	Lead	Zinc	Tin	Iron	Tungstic oxides	Gold	Silver
	tonnes	tonnes	tonnes	tonnes	'000 tonnes	tonnes	'000 grams	'000 grams
Copper concentrate	43,559	..	..	..	..	..	4,384	23,990
Blister copper	7,687	..	..	..	..	..	1,255	984
Copper matte, slags, etc.(a)	3,509	4,430	183	..	..	..	..	2,950
Lead concentrate	2,223	41,789	9,019	..	..	..	438	62,171
Lead bullion	11	141,436	..	..	..	..	..	292,521
Lead slags and residues	338	2,660	1,156	75	..	..	..	523
Zinc concentrate . . . . .	..	742	150,623	..	..	..	..	2,053
Zinc slags and residues	1	..	3,470	..	..	..	..	..
Tin concentrate	2	7	2	4,473	..	..	..	2
Iron ore—								
Pellets . . . . .	..	..	..	..	5,277	..	..	..
Fines . . . . .	..	..	..	..	15,392	..	..	..
Lump . . . . .	..	..	..	..	21,025	..	..	..
Scheelite concentrate . . . . .	..	..	..	..	..	979	..	..
Wolfram concentrate . . . . .	..	..	..	..	..	677	..	..
Total metallic content	57,330	191,064	164,453	4,548	41,694	1,656	6,077	385,194

(a) Includes copper matte, copper slags and residues and copper-lead dross and speiss.

Prices

The following table shows average prices of some principal refined metals and ores and concentrates on Australian and certain major overseas markets. Prices of minerals such as iron ore, coal and bauxite are not shown, as these minerals are commonly sold on a contract basis rather than on an open market basis.

**AVERAGE DAILY PRICES OF SELECTED METALS AND METALLIC ORES AND
CONCENTRATES: AUSTRALIAN AND OVERSEAS MARKETS**

(Source: Bureau of Mineral Resources, Geology and Geophysics)

Period	METALS(a)									
	Tin		Nickel U.K.		Aluminium		Gold		Silver	
	Aust. (\$A—ton)	L.M.E. (£Stg—metric ton)	(£Stg—metric ton)	(£Stg—metric ton)	Aust. (\$A—ton)	U.S.A. (USc—lb)	Premium markets (\$A—f. oz) Australia and Overseas	U.K. (\$US—f. oz)	Aust. (Ac—f. oz)	U.K. (Stg new pence—f. oz)
1970-71	3,344.9	1,476.7	643.1	1,231.1	578.0	29.0	33.76	37.87	151.7	70.3
1971-72	3,306.3	1,435.8	629.7	1,246.5	578.0	26.7	39.74	46.89	126.9	58.6
1972-73	3,291.2	1,630.5	627.7	1,371.8	578.0	24.3	58.40	77.92	156.6	83.6
1972-73—										
Highest	3,476.0	1,812.0	671.0	1,457.3	578.0	25.0	83.35	123.25	171.5	103.8
Lowest	3,117.0	1,511.0	605.0	1,246.5	578.0	23.0	50.76	60.35	132.1	63.8
Period	Copper		Lead		Zinc					
	Aust. (\$A—tonne)	L.M.E. (£Stg—metric ton)	Aust. (\$A—ton)	L.M.E. (£Stg—metric ton)	U.S.A. (USc—lb)	Aust. (\$A—ton)	L.M.E. (£Stg—metric ton)	Prod. (£Stg—ton)	U.S.A. (USc—lb)	
1970-71	(b)1,087.4	477.7	262.4	114.7	14.60	295.7	121.3	128.8	15.25	
1971-72	(b)976.6	427.9	237.9	106.7	14.72	343.0	141.4	150.0	17.21	
1972-73	990.3	508.6	250.0	137.8	15.63	355.5	177.2	174.3	19.41	
1972-73—										
Highest	1,240.0	715.3	250.0	171.6	16.50	379.0	277.8	205.0	22.50	
Lowest	925.9	416.5	250.0	120.8	14.50	343.0	145.6	150.0	18.00	

For footnotes see next page

AVERAGE DAILY PRICES OF SELECTED METALS AND METALLIC ORES AND
CONCENTRATES: AUSTRALIAN AND OVERSEAS MARKETS—*continued*

Period	ORES AND CONCENTRATES									
	Tin		Wolfram		Ilmenite		Rutile		Zircon	
	Aust. (\$A— <i>ltu</i>)	U.K. (£Stg— <i>mtu</i>)	Aust. (\$A— <i>ton</i>)	U.K. (£Stg— <i>metric ton</i>)	Aust. (\$A— <i>ton</i>)	U.K. (£Stg— <i>metric ton</i>)	Aust. (\$A— <i>ton</i>)	U.K. (£Stg— <i>metric ton</i>)		
1970-71 .	28.66	c22.80-36.75	11	7.50-11.50	145-150	76.00-81.00	35-39	25.25-28.50		
1971-72 .	28.27	14.00-22.00	11-12	9.35-11.32	115-150	64.00-79.72	35-39	26.82-28.05		
1972-73 .	27.93	14.00-19.15	10.5-12.0	9.35-11.32	115-125	64.00-87.00	35-39	26.82-38.00		
1972-73— Highest .	29.18	19.15	12.0	11.32	125	87.00	39	38.00		
Lowest .	26.78	14.00	10.5	9.35	115	64.00	35	26.82		

(a) Where a daily price does not actually exist for a commodity, daily prices have been imputed from price data which are available. (b) \$ per ton. (c) £stg per long ton unit.

Details on monthly prices, and price specifications relating to each commodity in the table are contained in each issue of the bulletin, Minerals and Mineral Products (10. 19).

REVIEW OF RECENT DEVELOPMENTS IN THE AUSTRALIAN MINERAL INDUSTRY

Major developments in the Australian mineral industry, particularly during the last year, are reviewed briefly in subsequent parts of this section. Additional information on developments in the industry is available in *Australian Mineral Industry 1972 Review* published by the Bureau of Mineral Resources, Geology and Geophysics. That publication contains comprehensive reviews of mineral commodities of importance to the Australian economy, as well as a general review of the industry's performance during the year.

World industrial activity recovered strongly in 1973 following the economic recession of 1971 and early 1972. Improved economic conditions were accompanied by a marked improvement in mineral and economic markets particularly those of the United States of America, Japan and Europe. Surplus stocks accumulated in 1971-72 were liquidated and demand increased substantially to meet higher levels of consumption and to replenish depleted inventories. Increased demand and international currency realignments in 1973 combined to push mineral and metal prices to new heights and by the end of the year base metals were being quoted at record levels.

Most sectors of the Australian mineral industry responded to improved world demand and new production and export records were established in 1973 despite revaluation of the \$A in December 1972 and September 1973 and devaluation of the \$US in February 1973. Some of the contracts written in \$US were renegotiated and in many cases losses were largely offset by improved world prices to such an extent that the estimated ex-mine value of mineral production increased by 16.5 per cent over 1972 to a new peak of \$2,175 million. The value of exports of mineral primary products in 1973 was \$1,669 million, an increase of 10 per cent over 1972.

In 1973 the bulk ores—bauxite, coal, iron ore and manganese ore—established new output records. Total production of base metal concentrates was maintained at 1972 levels. Mine production of copper increased substantially but this was balanced by an equivalent fall in mine production of zinc. Of the ferroalloy metals, mine output of nickel continued to expand while production of tungsten concentrates was reduced substantially in line with low world prices. Output of mineral sands which reached a peak in 1971 was held at the reduced 1972 level.

Bauxite

The history of the aluminium industry and recent significant developments in the industry were reviewed in previous issues of the Year Book (No. 51, page 1168 and No. 52, page 1048). The year 1973 was a period of continued growth in the industry both in mining and processing as detailed below.

In 1973 bauxite production capacity at Weipa, Queensland, increased to 10.5 million tonnes per annum following completion of a further stage in the development of the mine and associated township, and of ore treatment and loading facilities. Approximately 3 million tonnes from Weipa were used by the Gladstone, Queensland, alumina refinery in 1973; the remaining production is available for export. The refinery at Bell Bay, Tasmania, was closed down at the end of 1973.

Bauxite deposits at Gove, Northern Territory, covering reserves of the order of 250 million tonnes of ore, are being developed by a consortium of seven Australian and one overseas companies. The alumina plant at Gove now has a rated capacity of 1,000,000 tonnes annually.

Firm decisions have not yet been made to proceed with two other bauxite/alumina projects in Western Australia; one to mine bauxite from the Mount Saddleback area, the other to mine bauxite in the Chittering area for a refinery to be built near Muchea.

Alumina

Rated capacity of the alumina plant at Gladstone, Queensland, is now 2,000,000 tonnes per annum and at Kwinana, Western Australia, 1,250,000 tonnes. Bauxite supplies for the Kwinana refinery are obtained from deposits 50 km away at Jarrahdale, Western Australia, the reserves of which are assessed as at least 500 million tonnes. The alumina plant at Pinjarra, Western Australia, has a rated annual capacity of 700,000 tonnes.

Copper

Copper production at Mount Isa was increased to a rate of 153,000 tonnes yearly during the last half of 1973. Work completed in 1973 included new development between 19 and 21 level, commissioning of new service and hoisting shafts, extensions to the existing copper smelter and a new concentrator, as well as enlargement of ancillary facilities.

A new copper-gold ore body at Warrego has been developed near Tennant Creek, Northern Territory. The first stage of development cost \$21 million; it has an installed mining capacity of 500,000 tonnes of ore per annum and production commenced in 1973.

Since the beginning of 1967 the Australian producers' price has been adjusted regularly to reflect movements in the London Metal Exchange daily settlement price. Prices rose strongly during the first eight months of 1973 to a maximum of \$A1500 per tonne before falling slightly in September and October. The price recovered in November and December to close the year at \$A1420.

Iron

The major development of recent years has been the establishment in Australia of a large scale iron ore export industry based principally on steelmaking requirements in Japan. Exports of iron ore and iron ore pellets in 1973 to Japan and elsewhere were 74 million tonnes valued at \$459 million.

New mines began production in the Pilbara, Western Australia, in 1973, at Shay Gap, Sunrise Hill and Paraburdoo; programs to expand production capacity continued in early 1974 at Robe River, Mount Whaleback and Paraburdoo.

Lead and zinc

Production of lead and zinc metal rose in 1973.

The South Mine at Broken Hill operated profitably under new management in 1973 following recommencement in late 1972; retreatment of residue dumps continued.

Black coal

There has been a significant revival in the Australian black coal industry in recent years as a result of increased exports and increased consumption of black coal in iron and steel production and electricity generation. These increases have more than balanced reduced consumption in some applications due to competition from fuel oil.

The expansion of the export trade has been of major significance. In 1955 exports were about 200,000 tonnes valued at about \$1.7 million; in 1973 exports were 28.4 million tonnes valued at \$321 million. These increased exports have been largely to Japan for use in the iron and steel industry. As a result of this increased demand, new mines have been opened and others are under development in Queensland and New South Wales, and many established mines are being expanded. Exploration for coal has been stimulated and further rich deposits of coking coal have been located, particularly in Queensland.

Petroleum

At the end of 1973 there were seven oil fields in production: Moonie, Alton and Bennett in Queensland; Barrow Island in Western Australia; and Barracouta, Halibut and Kingfish in the Gippsland Shelf area offshore from Victoria. The production of crude oil from these in 1973 amounted to 22,620,000 cubic metres representing 69 per cent of the year's total input to Australian refineries of crude oil and other feedstock of 32,879,000 cubic metres. The average daily production of 61,900 cubic metres in 1973 was 19 per cent higher than the 52,000 cubic metres daily average in 1972.

Natural gas production in 1973 amounted to 4,099 million cubic metres, 28.6 percent more than in 1972. About 10 percent of the 1973 total production was used in the field and processing plants and the balance was sold mainly as fuel to markets in Victoria, South Australia, Western Australia and Queensland.

Discoveries made in 1973 included two of oil (non-commercial) at Egret and at Dockrell in the Dampier Sub-basin of the Carnarvon Basin, on the Northwest Shelf, offshore from Western Australia, and four of natural gas, of which one is at Dockrell and the other three (Kanowana, Wolgolla and Durham Downs) are in the Cooper Basin in South Australia.

The provisional figure for metres drilled in petroleum exploration and development in Australia in 1973 was 175,694 metres, which is some 120,385 metres (about 40 percent) less than the metres drilled in the previous year. About 151,458 metres of the 1973 total was attributable to exploration drilling, of which 93,077 metres were drilled offshore. Of the 76 wells completed in 1973, 65 were exploration wells, of which 32 were offshore. In comparison with the previous year there was a decline of 34 in the number of exploration wells and 22 development wells; there was a decline of 6 in the number of offshore exploratory wells. Of the exploration wells drilled, 1 was completed as a potential oil producer and 5 as gas producers; of the development wells 10 were completed as potential gas producers.

Nickel

Output from Australia's major nickel mining operation at Kambalda in Western Australia has grown to more than 40,000 tonnes of contained nickel per annum since mining commenced in 1967. Mines at Nepean and Scotia also commenced production in early 1969 and that at Windarra will commence production in 1974; mines have been developed at Carr Boyd Rocks and, in the Widgiemooltha area, at Redcross and Location 3. At the end of 1973 the refinery at Kwinana, Western Australia, was producing more than 20,000 tonnes of nickel metal per annum from concentrates. The flash smelter commissioned at Kalgoorlie has a design capacity of 200,000 tonnes of concentrate a year. Capacity will be increased by 75 per cent when certain modifications are made. The matte produced is feed for the Kwinana refinery and overseas refineries.

Development of the lateritic nickel deposit at Greenvale in northern Queensland is proceeding. Construction of a railway and an ammonia leach treatment plant at Townsville, northern Queensland, was completed in 1974. After commissioning operations, production at the rate of 23,000 tonnes of nickel oxide sinter per annum should commence early in 1975.

Mineral sands

The history of the mineral sands industry and an assessment of resources is presented in the *Australian Mineral Industry—Quarterly Review* Vol. 25 No. 1.

Production of mineral sands at Eneabba, Western Australia, commenced on a pilot plant scale in early 1973. Rated annual capacity of the separation plant was 7,000 tonnes of rutile, 15,000 tonnes of zircon and 28,000 tonnes of ilmenite. Full-scale production at 450,000 tonnes of heavy minerals per year is planned for mid-1975. Another plant with a rated annual capacity of 240,000 tonnes of heavy minerals per year was commenced in April 1974 and shipments of rutile and ilmenite commenced in August 1974. Feasibility studies are being carried out on at least two other separate mineral sands projects in the Eneabba-Jurien Bay area, and by the late 1970s annual production of 150,000 tonnes of rutile, 289,000 tonnes of zircon and 500,000 tonnes of ilmenite could be achieved from this region. An ilmenite beneficiation plant has operated on a semi-commercial scale of about 10,000 tonnes per annum at Capel, Western Australia, since 1968. A commercial 30,000 tonnes per annum upgrading plant was commissioned at Capel in June 1974.

Phosphate

Following the increase in the world price of phosphate rock in late 1973, after a 20-year period of relatively constant prices, the development of the Duchess deposits for production in 1975 is being examined. Existing railway and port facilities can be extended, thereby enabling production from Duchess to be commenced earlier than possible from the Lady Annie-Lady Jane deposits, which require beneficiation and new transport and port facilities. The Duchess deposits contain "direct shipping" rock.

CHAPTER 27

ELECTRIC POWER GENERATION AND DISTRIBUTION

This chapter is divided into three major parts: the Introduction, which deals briefly with the resources, generation and distribution, and future development of electric power in Australia; the Snowy Mountains Hydro-electric Scheme; and the origins, development, present situation and new projects of electrical systems in each Australian State and internal Territory.

The information contained in the chapter relates to situations existing and projects contemplated, and may be considerably affected by changes in policy or plans, or by developments in the projects themselves. Greater descriptive and historical detail about the various systems is contained in earlier issues of the Year Book. For further details *see also* the annual reports of the respective authorities. Statistics on the electricity industry are included in tables in Chapter 21, Manufacturing Industry.

INTRODUCTION

Distribution of population and location of electric power resources in Australia

The two principal centres of population and industry in Australia, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power, and their growth has been associated with the development of large deposits of coal located relatively close to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of Australia, materially influences the distribution of industrial population and the location of major electric power stations. By far the most important source of energy used in the production of electric power in Australia is coal. At 30 June 1972 thermal power equipment represented 71.6 per cent, hydro plant 26.0 per cent, and internal combustion and gas turbine equipment 2.4 per cent of the total installed generating capacity.

Most of Australia is poorly supplied with water, only about 13 per cent receiving an annual rainfall of 30 inches or over, and these areas are confined largely to Tasmania and to the narrow coastal strip along the east coast of the mainland. The only region on the mainland of Australia high enough to receive reliable winter snowfall, and from which, therefore, reasonably constant water supplies throughout the year can be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable, and plans have been formulated to develop more than 4,000,000 kW by 1975. The two major construction projects in this area are the Snowy Mountains and Kiewa schemes. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount available is smaller than the potential of the Alpine region. In Tasmania, hydro-electric resources have been estimated at about 50 per cent of the total Australian hydro-electric potential. On the mainland the chief source of energy is coal; in Tasmania it is water.

Electric power generation and distribution

At the beginning of this century Australia's electrical undertakings were carried on mainly by private enterprise, but with some measure of government control designed to provide standards of safety and to define the scope and obligations of the private organisations. A trend towards public ownership commenced during the 1914-18 War and became more pronounced after the 1939-45 War. By 1961 all major generating stations supplying the public were, in varying degrees, under the control of statutory organisations constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies. There are still a large number of small private and municipal enterprises generating power for supply to country towns, although central authorities are extending supply to these places wherever practicable. In many areas it has been, and remains, the practice for central authorities to sell power in bulk to local distributing organisations which undertake reticulation.

In addition to the private, local government and statutory organisations which generate and/or distribute electricity for sale, numerous firms generate power for use in their own establishments, particularly those engaged in mining remote from the main centres of population. This chapter, however, is concerned mainly with the activities of central electric stations, as the power regularly

produced for such internal consumption is, in any case, a relatively small proportion of the total power produced. The measures taken by authorities to satisfy the demand created by the post-war growth in population and building and by developments in industry and commerce are described in the following pages.

SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME*

Snowy Mountains Hydro-electric Power Act 1949-1958

In July 1949 the Australian Government established the Snowy Mountains Hydro-electric Authority, and empowered it to generate electricity by means of hydro-electric works in the Snowy Mountains Area; supply electricity to the Australian Government (i) for defence purposes, (ii) for consumption in the Australian Capital Territory; and supply to a State, or to a State Authority, electricity not required for defence purposes or for consumption in the Australian Capital Territory.

The Snowy Mountains Act is supported by a detailed agreement between the States of New South Wales and Victoria and the Australian Government with regard to the construction and operation of the Scheme, the distribution of power and water, charges to be made for electricity, and other such matters. The Snowy Mountains Council, established under the terms of the Agreement and consisting of representatives of the Australian Government, the Authority and the two States, directs and controls the operation and maintenance of the permanent works of the Authority and the allocation of loads to generating stations.

Snowy Mountains Hydro-electric Scheme

The broad basis of the Snowy scheme is to transfer waters, which would otherwise flow to the sea unharnessed, from the Snowy River and its tributaries to the inland system, so that the water may be used for irrigation and to provide power. It involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. These two diversions divide the scheme geographically into two sections, the Snowy-Tumut Development and the Snowy-Murray Development (*see* plate 59 opposite). For purposes of both power production and irrigation it is necessary to regulate run-off, and this is achieved by the use of Lake Eucumbene (formed by the construction of Eucumbene Dam) and other storages to control the waters of the Eucumbene, Murrumbidgee, Tooma, and Tumut Rivers for the Snowy-Tumut Development and of the Snowy and Geehi Rivers for the Snowy-Murray Development. A sectional diagram of the scheme appears on plate 60, page 984.

Snowy-Tumut Development. This development comprises works for the diversion and regulation of the waters of the Eucumbene, Upper Tooma, Upper Murrumbidgee, and Upper Tumut Rivers and their combined development through a series of power stations down the Tumut River. A major dam has been constructed on the Eucumbene River to create Lake Eucumbene, which has an ultimate useable storage of 4,300 million cubic metres. The waters of the Upper Murrumbidgee River are diverted into Lake Eucumbene by a dam at Tantangara and a 17-kilometre tunnel from Tantangara Reservoir. From Lake Eucumbene the water flows through a 23-kilometre tunnel to Tumut Pond Reservoir on the upper reaches of the Tumut River, where it joins the waters of the Tumut River itself and the waters of the Tooma River diverted to Tumut Pond Reservoir by a diversion dam and a 14-kilometre tunnel.

From Tumut Pond Reservoir water is conveyed by pressure tunnel to Tumut 1 underground Power Station (capacity 320,000 kW), returned to the Tumut River and then by another pressure tunnel to Tumut 2 underground Power Station (capacity 280,000 kW), thence discharging into Talbingo Reservoir, also on the Tumut River.

Tumut 3 Power Station, the largest station of the scheme (generating capacity 1,500,000 kW and pumping capacity 3,000 cubic metres per second) has been constructed below Talbingo Reservoir and discharges into Jounama Pondage on the Tumut River. This pondage provides a downstream pumping pool and also regulates discharges from Tumut 3 Power Station as required. Releases from Jounama Pondage then enter Blowering Reservoir formed by Blowering Dam. This dam, constructed by the Snowy Mountains Authority as an agent for the State of New South Wales, provides for the regulation of power station discharges for irrigation use in the Murrumbidgee Valley. The Authority has constructed a power station at the foot of the dam to generate power from releases of water for irrigation purposes.

Snowy-Murray Development. The principal features of the Snowy-Murray Development are the diversion of the main stream of the Snowy River by tunnels, shafts, and pipelines westwards through

* *See also* Chapter 23 Water Resources of this issue and special detailed article in Year Book No. 42, pp. 1103-30.

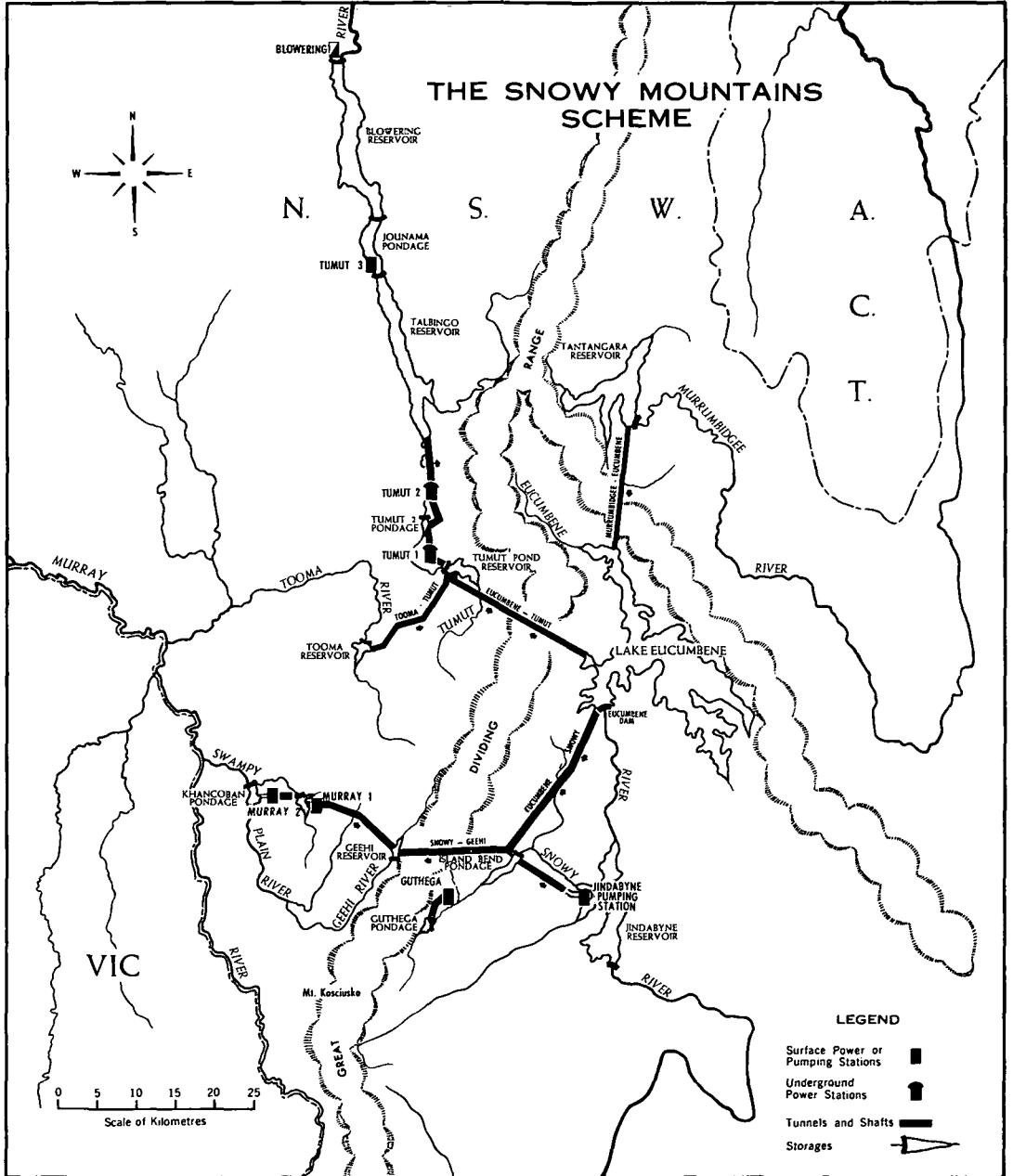
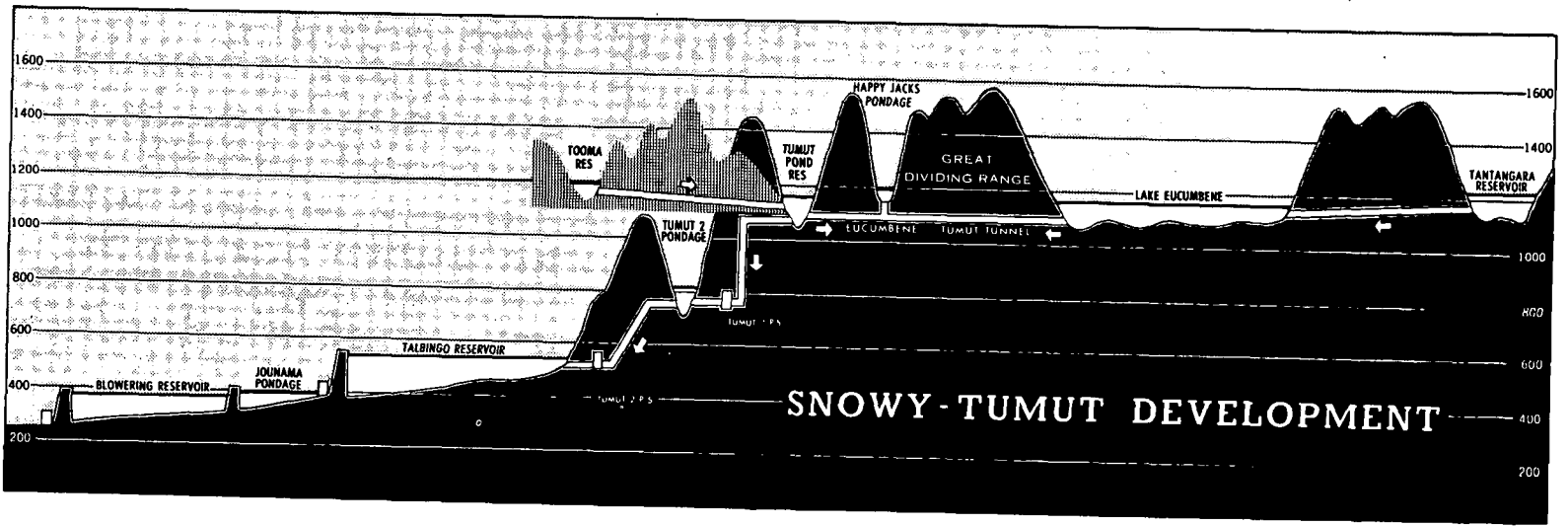
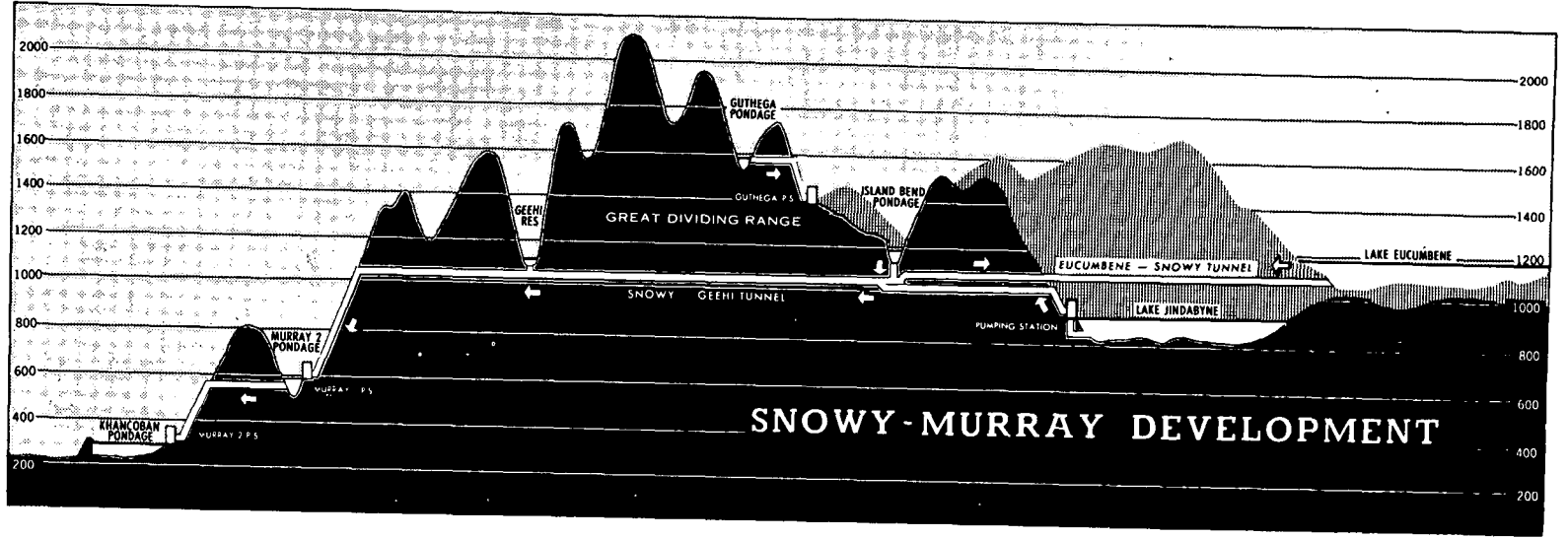


PLATE 59



SNOWY-TUMUT DEVELOPMENT



SNOWY-MURRAY DEVELOPMENT

the Great Dividing Range into the Swampy Plain River in the catchment of the Upper Murray, and the development of power on the western slopes of the Alps. The main works of the development are as follows:

- (a) A tunnel from the Snowy River near Island Bend through the Great Dividing Range to Geehi Reservoir on the Geehi River, and two power projects between Geehi Reservoir and the Swampy Plain River near Khancoban. The power stations associated with these two power projects, Murray 1 and Murray 2, have a combined capacity of 1,500,000 kW.
- (b) A tunnel from a dam on the Snowy River near Island Bend to Eucumbene Dam to carry Snowy water to Lake Eucumbene for storage at times of high river flows. When river flows are lower than average, this stored water is returned towards Island Bend and thence through the Snowy-Geehi Tunnel to Geehi Reservoir and Murray 1 and Murray 2 Power Stations.
- (c) A dam on the Snowy River near Jindabyne to store the residual flow of the Snowy and Eucumbene Rivers downstream from Island Bend and Eucumbene Dams, including the flows of major tributories, the Crackenback and Mowamba Rivers; and a pumping plant, pipeline and tunnel to lift this water from Jindabyne Reservoir to the Snowy-Geehi Tunnel near Island Bend, where it joins the flow to the Geehi Reservoir for use through Murray 1 and Murray 2 Power Stations.

The power output of this section of the Scheme is increased by the Guthega Project, a subsidiary hydro-electric project on the Upper Snowy River above Island Bend with a generating capacity of 60,000 kW.

Utilisation of power from scheme

The future electric power plants on the mainland of Australia will be predominantly thermal or thermo-nuclear installations, and in an electrical system in which the greater part of the energy is generated in thermal plants it is usually found that the hydro installations operate to the best advantage on peak load. However, the existing New South Wales and Victorian systems include a proportion of relatively old and less efficient installations which, for reasons of fuel economy, are also best used for the production of peak load power. Therefore, in order to utilise the potential of the Snowy Mountains Scheme most effectively, the order of development was arranged so that the early stations operated, initially, somewhat below the peak of the system load, with a progressive change to predominantly peak load operation as construction proceeded and as the load increased in magnitude.

The Snowy Mountains Scheme is situated about midway between the principal load centres of Sydney and Melbourne and is connected to those cities by 330kV transmission lines. It is, consequently, in a position to take advantage of the diversity in the power requirements of these two load systems, a most important factor in so far as it affects the economy of operation of the supply systems of the two States. The average energy generated by the Snowy Mountains Hydro-electric Scheme is 5,070 million kWh a year. The Australian Government reserves 670 million kWh for supply to the A.C.T., and Victoria receives one-third of the surplus and N.S.W. is entitled to the other two-thirds. For convenience, the Australian Government's requirements are drawn from the New South Wales transmission network by an exchange arrangement between the Australian Government and the Electricity Commission of New South Wales. Electricity over and above that required by the Australian Government is divided between the States of New South Wales and Victoria in the ratio 2:1.

Progress of scheme and future program

The scheme's first power station, Guthega, of 60,000 kW capacity, came into operation in February 1955. It was followed by Tumut 1, an underground power station with a capacity of 320,000 kW, in 1959, and by the 280,000 kW Tumut 2 underground Power Station in 1962. Eucumbene Dam, which provides the major regulating storage for the scheme, was completed in May 1958. Tumut Pond Dam, completed in September 1958, provides the balancing storage for the power stations of the Upper Tumut Works. The first trans-mountain diversion of water from Lake Eucumbene to the Tumut River at Tumut Pond was made possible when the 23 kilometre Eucumbene-Tumut Tunnel was completed in June 1959. The 17 kilometre Murrumbidgee-Eucumbene Tunnel and the 14 kilometre Tooma-Tumut Tunnel came into operation early in 1961. Following the completion of the Upper Tumut Works, construction activity was concentrated on the Snowy-Murray Development. The first unit of this development, the Eucumbene-Snowy project which comprises Island Bend Dam and the 24 kilometre Eucumbene-Snowy Tunnel, commenced diverting Snowy River water to storage in Lake Eucumbene in August 1965. Completion of a 14 kilometre trans-mountain Snowy-Geehi Tunnel, the 12 kilometre Murray 1 Pressure Tunnel, the first of the 1.6 kilometre long Pressure Pipelines, and the first two units of the 950,000 kW Murray 1 Power Station in April 1966 allowed the first diversion of the water from the Snowy River to the Murray River in the west. All of the ten turbo-generators were brought into commercial operation with the opening of the Murray 1 Project in July 1967.

Khancoban Dam, designed to regulate power station releases before their discharge into the Murray River, was completed in February 1966. The Murray 2 Project in the base of the open cut excavated in the bank of Khancoban Reservoir downstream of Murray 1 Project was completed in 1969. The four units of Murray 2 Power Station totalling 550,000 kW came into commercial operation in October 1969. Construction is also complete on the Jindabyne Project. The earth and rockfill dam was completed in September 1967, and the pumping station and Jindabyne-Island Bend Tunnel came into service in February 1969.

Blowering Dam on the Tumut River came into service in May 1968, and the 80,000 kW Blowering Power Station began commercial operation in August 1971.

The total installed capacity of the scheme has now reached 3,740,000 kW.

For the Tumut 3 Project the construction of Jounama Dam was completed in 1968 so that the storage of water in Blowering Dam could commence. Talbingo Dam was completed in October 1970 and Tumut 3 Power Station was officially opened in October 1972 with two generators in operation. The succeeding four generators were brought into service to achieve full operation in 1974.

STATES AND TERRITORIES

New South Wales

In Year Book No. 39 an account was given in some detail of the origin and development of electricity generation and distribution in New South Wales. At present the following four Acts govern electricity supply in New South Wales.

The Local Government Act, 1919, which lays down the various rights and responsibilities of local government bodies in the establishment and operation of electricity trading undertakings.

The Gas and Electricity Act, 1935, established the Sydney County Council which is responsible for the distribution of electricity in a large part of the Sydney metropolitan area. The Act also amended the Local Government Act in certain respects.

The Electricity Development Act, 1945, which established the Electricity Authority of New South Wales as the body responsible for the co-ordination of electricity supply throughout the State.

The Electricity Commission Act, 1950, which constituted the Electricity Commission of New South Wales as the major generating authority and not subject to the provisions of the Electricity Development Act.

Electricity Commission of New South Wales and electricity supply authorities

The main function of the Commission is the generation and transmission of electricity, which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the Government railways and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources except in the Snowy Mountains region.

The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities. At 30 June 1973 there were 41 retail supply authorities throughout the State, comprising 34 electricity county councils (consisting of groups of shire and/or municipal councils), 2 city and 2 municipal councils, 1 shire council, and 2 private franchise holders. In addition to the Electricity Commission, 2 coal companies supply electricity in bulk to retail supplying authorities. Most of the small power stations which had operated in many country centres have closed down as the main transmission network has been extended.

Most electricity distribution areas have been consolidated into county districts consisting of a number of neighbouring local government areas grouped for electricity supply purposes, and administered by a county council comprising representatives elected by the constituent councils. Of the 223 cities, municipalities and shires in New South Wales, 215 are included in one or other of the 34 electricity county districts.

The Electricity Authority of New South Wales

The Electricity Development Act, 1945, confers broad powers on the Electricity Authority to co-ordinate and develop the public electricity supply industry. The functions of the Authority include the promotion of the use of electricity and especially its use for industrial and manufacturing purposes and for primary production. Technical advice is given to retail electricity supply authorities on various aspects of their activities such as the framing of retail electricity tariffs, public lighting and

standardisation of materials and equipment. The Authority acts in an advisory capacity to the Minister for Mines and Power on electricity distribution matters generally, and may make recommendations concerning the organisation of distribution, the amendment of the law relating to the generation, transmission, distribution and supply of electricity, or on any other matters affecting the electricity distribution industry.

The Authority administers the Rural Electricity Subsidy Scheme under which the rural electrical development of the State has now been virtually completed where the extension of supply is economically feasible. Under the subsidy scheme, local electricity suppliers receive subsidies from the Authority towards the cost of new rural lines. At 30 June 1973 the Authority was committed to the payment of \$37,423,178 in subsidies, of which \$29,873,374 had been paid. Further details of the operation of the scheme are given on page 956, Year Book No. 56.

The Electricity Development Act contains provisions for the making of regulations relating to most aspects of electrical safety. Regulations now in force cover such matters as consumers' installations, licensing of electricians and electrical contractors, approval of electrical articles, safety of linesmen, and overhead line construction and maintenance. In addition, a number of aspects not governed by legislation are covered by codes of practice or recommended procedures.

The Authority also administers the Traffic Route Lighting Subsidy Scheme, which provides for financial assistance to councils towards the cost of installation of improved lighting on traffic routes traversing built-up areas with the objective of reducing the incidence of night road accidents. Since the introduction of the scheme in 1964, subsidy has been approved in respect of some 1,196 kilometres of traffic routes throughout the State.

Generation and transmission

Of the State's electrical power requirements during the year ended 30 June 1973, 88.9 per cent was generated by coal fired power stations in New South Wales, 0.3 per cent by internal combustion plants, 10.8 per cent by hydro-electric stations (including 7.7 per cent obtained direct from the Snowy Mountains Scheme). Interstate imports accounted for 1.4 per cent of the State's electricity requirements.

Major generating stations. At 30 June 1973 the major power stations of the State system of the Electricity Commission of New South Wales and their effective capacities were as follows: Liddell (Hunter Valley), 1,500,000 kW; Munmorah (Tuggerah Lakes), 1,400,000 kW; Vales Point (Lake Macquarie), 875,000 kW; Bunnerong (Sydney), 375,000 kW; Wangi (Lake Macquarie), 330,000 kW; Tallawarra (Lake Illawarra), 320,000 kW; Wallerawang (near Lithgow), 240,000 kW; Pyrmont (Sydney), 200,000 kW. The total effective capacity of the Electricity Commission's system as at 30 June 1973 was 5,892,000 kW. The greater part of the Commission's generating plant is concentrated within a one hundred and eighty-five kilometre radius of Sydney.

Major transmission network. The retailing of electricity to 97 per cent of the population of New South Wales is in the hands of local distributing authorities, which obtain electricity in bulk from the Commission's major State network. This network of 330 kV, 132 kV, 66 kV and some 33kV and 22kV transmission lines, links the Commission's power stations with the load centres throughout the eastern portions of the State, extending geographically up to 650 kilometres inland.

At 30 June 1973 there were in service 2,438 route kilometres of 330 kV and 5,522 kilometres of 132 kV transmission lines (including 206 kilometres operating for the time being at 66 kV). There were also in service 4,373 kilometres of transmission line of 66 kV and lower voltages, and 196 kilometres of underground cable. The installed transformer capacity at the Commission's 152 sub-stations was 20,419,450 kVA.

Separate systems and total State installed capacity. Several local government bodies operate their own power stations and generate portion of their requirements which is supplemented by inter-connection with the system of the Electricity Commission. Of these the more important are the Northern Rivers County Council (installed capacity 28,750 kW) and the North-West County Council (15,000 kW). In addition a private company operates small stations supplying the towns of Ivanhoe and Wilcannia. The aggregate effective capacity for the whole of New South Wales systems and isolated plants was 5,989,325 kW at 30 June 1973 and the number of ultimate consumers at this date was 1,703,467

Future development

The major new thermal stations already built and those now being developed on the coalfields will become the main base load supply sources for the State. Munmorah, located between Lakes Munmorah and Budgewoi, Wangi, on Lake Macquarie, Wallerawang, near Lithgow, and Tallawarra, on Lake Illawarra, have been completed.

The first 500,000 kW generating unit of the Liddell Power Station in the Hunter Valley was commissioned in 1971, followed by the second in 1972 and the third in 1973. The fourth followed early in 1974, making a total capacity of 2,000,000 kW.

Future projects include the installation of an additional 500,000 kW unit at Wallerawang, scheduled for commissioning in 1975-76 and two 660,000 kW units at Vales Point required for operation in the late 1970s.

The development of the 330 kV main system is continuing. New work recently completed includes the construction of major 330 kV transmission lines from Lower Tumut to Canberra, Canberra to Dapto, and Liddell to Newcastle. A new 330 kV substation, Sydney East, is being established in the Sydney Metropolitan Area. Other work is in progress and being planned throughout the State to augment the transmission system.

Hydro-electricity

The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains area (*see* Snowy Mountains Hydro-electric Scheme, page 982). Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50,000 kW), Hume Dam (50,000 kW) and Burrinjuck Dam (20,000 kW). There are, in addition, five smaller hydro-electric installations in operation in various parts of the State. A pumped-storage hydro-electric system to produce 240,000 kW by 1976, is being installed as part of the Shoalhaven Scheme in conjunction with the Metropolitan Water Sewerage and Drainage Board.

Victoria

In Year Book No. 39 a detailed description is given of the development of electricity generation in the cities of Melbourne, Geelong, Bendigo and Ballarat up to the time of transfer of control of electricity undertakings in those cities to the State Electricity Commission of Victoria. An account is also given of the events culminating in the establishment of the Commission in 1919, and of the early developments in the Commission's undertakings.

State Electricity Commission of Victoria

Constituted by the *Electricity Commissioners Act* 1918, the State Electricity Commission is a semi-government authority administered since 1921 by a full-time Chairman and three part-time Commissioners. The principal duty of the Commission is to co-ordinate and extend on an economic basis the supply of electricity throughout Victoria. For this purpose it is vested with power to erect, own and operate power stations and other electrical plant and installations, supply electricity retail to individual consumers or in bulk to any corporation or public institution, develop, own and operate brown coal open cuts and briquetting works, and develop the State's hydro-electric resources. From its own revenues, which it controls, the Commission must meet all expenditure in the operation of its power and fuel undertakings and provide for statutory transfers to the Consolidated Fund of Victoria.

The Commission is the controlling authority for all electrical undertakings in Victoria. It is responsible for the registration of electrical contractors, the licensing of electrical mechanics, the control of installation methods and material, and the testing and approval of electrical equipment and appliances.

Since it began operating in 1919 the State Electricity Commission has expanded and co-ordinated the production and supply of electricity on a State-wide basis to the point where its system now generates almost all the electricity produced in Victoria. Victoria's electricity system is based on the utilisation of the extensive brown coal resources of the Latrobe Valley in Gippsland.

Output of brown coal in 1973-74 from the Commission's three open cuts at Yallourn, Morwell and Yallourn North totalled 25,148,000 tonnes, of which 21,743,000 tonnes were used in the Commission's power stations. A further 3,097,000 tonnes of brown coal were used to manufacture 1,164,000 tonnes of briquettes, of which 194,000 tonnes were burnt in power stations. The only other fuel used in power generation was 35,000 tonnes of oil.

Generation in thermal stations is supplemented by energy from the Commission's hydro stations in the mountains north-east of the State, and by hydro entitlements from the Snowy Mountains Scheme (one-third of the output after provision of the Australian Government's needs) and Hume Power Station (half of the output).

Electricity Supply

At 30 June 1974 the number of ultimate consumers in Victoria was 1,400,000 all served by the Commission except the extreme eastern settlements of Bendoc and Bonang (supplied from an adjoining area of New South Wales).

The Commission sells electricity retail in all Victorian supply areas except for eleven metropolitan municipalities. These municipalities, retailing electricity under franchises granted before the Commission was established, take bulk supply from the Commission. Bulk supply is also provided to several New South Wales municipalities and irrigation settlements bordering the River Murray.

The Commission's retail consumers numbered over 1,146,000 at 30 June 1974. Of these some 964,000 were domestic, 87,000 industrial and 95,000 commercial. Retail supply is administered through the metropolitan branch and nine extra-metropolitan branches with headquarters at Geelong, Dandenong, Traralgon, Mildura, Ballarat, Benalla, Bendigo, Colac and Horsham. Branch and district supply offices are located in Melbourne and all other major cities and towns in Victoria.

Complete electrification of the State has virtually been achieved. By 30 June 1974 over 1,100,000 homes and 75,000 farms were supplied with electricity. Only a few remote areas remain out of reach of public supply mains.

Electricity production, transmission and distribution

Electricity generated in the State system or purchased by it totalled 16,147,000 MWh in 1973-74. The system comprises a series of thermal and hydro-electric power stations. Inclusive of generator capacity both within the State and available to the Victorian system from outside the State, the total installed generator capacity at 30 June 1974 was 4,330 MW. Power stations are interconnected and feed electricity into a common pool for general supply. The major power station in the interconnected system is the 1,600 MW Hazelwood brown coal burning power station near Morwell, which alone generates over 50 per cent of Victoria's electricity. Other brown coal power stations in the interconnected system comprise the established base load stations at Morwell and Yallourn and the partly completed Yallourn 'W' station. Peak load steam stations are located in Melbourne (Newport, Richmond and Spencer Street), and Red Cliffs, which has, in addition, some internal combustion plant. Hydro-electric stations are at Kiewa, at Eildon, on the Rubicon and Royston Rivers near Eildon, and at Cairn Curran. All generators for public supply within Victoria are Commission-owned, except Spencer Street Power Station, which remains the property of the Melbourne City Council, although operated as a unit of the interconnected system. The Victorian system is linked with the Snowy Mountains Scheme by a 330 kV transmission line, which also allows the interchange of energy between New South Wales and Victoria. The hydro station at Hume Dam on the River Murray is also linked with the Victorian interconnected system. Output and operating costs of this power station, owned by the Electricity Commission of New South Wales, are shared equally by the Electricity Commissions of Victoria and New South Wales.

The electrical transmission and distribution system in the State supply network at 30 June 1974 comprised over 100,000 kilometres of power-lines, 30 terminal receiving stations, and 70,000 substations. Main transmission is by 500 kV, 330 kV, 220 kV, and 66 kV power lines which supply the principal distribution centres and also provide interconnection between the power stations. The 500 kV, 330 kV and 220 kV systems total 3,700 route kilometres.

Future development

Yallourn 'W' Power Station, now under construction, is located about one kilometre west of the present Yallourn Power Station. The first of two 350 MW turbo-generators is in service and the second unit is scheduled for early 1975. The third and fourth units, each 375 MW, are planned for service in 1979 and 1980. A natural gas-fired power station of 1,000 MW capacity is under construction adjacent to the existing Newport Power Station. It will have two 500 MW generating units, the first to be in service in 1977, the other in 1979. A 150 MW hydro station associated with an irrigation dam at Dartmouth is planned to be in operation during 1979.

Queensland

In Year Book No. 39 an account is given of the growth of electricity generation in Queensland, with particular reference to south-eastern Queensland, and of the events leading up to the establishment in 1937 of the State Electricity Commission of Queensland. In Year Book No. 53 an account is given of the post-war development and organisation of the electricity supply in Queensland.

Electricity supply in Queensland is governed by the following Acts which are administered by the Commission.

- '*The State Electricity Commission Acts, 1937 to 1965.*' These Acts constituted the Commission and define its powers and duties.
- '*The Electric Light and Power Acts, 1896 to 1967.*' These Acts relate to the constitution of electric authorities, except the Southern Electric Authority and the Northern Electric Authority, and define their powers and duties and the conditions under which electricity is to be supplied and used.
- '*The Regional Electric Authorities Acts, 1945 to 1964.*' These Acts provide for the constitution of Regional Electricity Boards representative of the Commission and the Local Authorities within each region, and define their powers and responsibilities.
- '*The Southern Electric Authority of Queensland Acts, 1952 to 1964.*' These Acts established the Southern Electric Authority and define the powers and responsibilities of the Authority.
- '*The Northern Electric Authority of Queensland Acts, 1963 to 1964.*' These Acts established the Northern Electric Authority. They also define its powers and responsibilities.
- '*The Electrical Workers and Contractors Acts, 1962 to 1971.*' These Acts provide for the certification of electrical workers and for the licensing of electrical contractors.

State Electricity Commission of Queensland

The Commission commenced to function in January 1938. The Commission is the statutory authority concerned, *inter alia*, with the administration of electricity supply legislation, the general control, organisation and efficient development of the electricity supply industry in Queensland, the forward planning of such development, the control of electricity charges, the administration of regulations and rules relating to safety, the raising of capital, the provision of engineering and consulting services, the promotion of the use of electricity, particularly in manufacturing and rural industries, and the fixing of standards. In addition, it is an authority to which consumers may appeal on matters in dispute between them and their electric authorities. The Commission is also empowered to own and operate generating stations and transmission lines and to sell electricity in bulk.

Organisation

Regional electrification, with centralised generation and main transmission, is the predominant feature of the organisation of the electricity supply industry in Queensland. The more populous eastern part of the State is served by three major networks.

The southern network embraces the areas of supply of the Southern Electric Authority, the Brisbane City Council, the Wide Bay-Burnett Regional Electricity Board, and the Dalby Town Council. Generation and main transmission in this area are the responsibility of the Southern Electric Authority, which sells energy in bulk to the other three Authorities. The Wide Bay-Burnett Board also operates its own base load power station at Howard. The Southern Electric Authority is also responsible for the distribution of electricity to a large rural area outside metropolitan Brisbane.

The central network is within the area of supply of the Capricornia Regional Electricity Board, which is responsible for the generation, main transmission and distribution of electricity.

The central and southern networks were interconnected by a 275 kV transmission line in early 1973.

The northern network covers the areas of supply of the Cairns, Townsville, and Mackay Regional Electricity Boards. Generation and main transmission are the responsibility of the Northern Electricity Authority, and electricity is purchased in bulk for distribution by the three Regional Electricity Boards. In addition, the Cairns Regional Electricity Board operates small internal combustion generating stations at certain isolated centres in its area, and the Townsville Regional Electricity Board supplies the western area of its region by means of a distribution system based on an internal combustion station at Hughenden.

West of the three main networks the form of organisation which has been adopted is determined by the stage of electrical development which has been reached. Immediately west of the Capricornia region the Central Western Regional Electricity Board operates with generation centralised at internal combustion stations at Longreach and Barcaldine. Other smaller regions of electricity supply are centred on Roma and Mount Isa. In addition, parts of southern Queensland are supplied by the Tenterfield Municipal Council and the North West County Council of New South Wales, whilst the Balonne Shire Council purchases electricity in bulk from the Electricity Commission of New South Wales. In the remaining parts of Western Queensland there are a number of isolated electricity undertakings operated by Shire Councils.

An inquiry is being made into all aspects of the future organisation of the industry in Queensland. It is planned that a single generating authority will become operative in 1975 and will be responsible for generation and main transmission throughout the State. Improvements in the organisation of the distribution function will be complementary to this development.

Electricity generation, transmission and distribution

Electricity generated in the State is based primarily on steam power stations using black coal, 90 per cent of the total production during 1972-73 being derived from this fuel. Hydro-electric stations, located mainly in North Queensland provided 8 per cent, and the balance of the production was provided from internal combustion and gas turbine stations. These gas turbine stations use oil as their energy source. All of the internal combustion diesel stations use oil as fuel but the power station at Roma also uses locally produced natural gas. Electricity generated in Queensland in power stations during 1972-73 totalled 7,612 million kWh. A further 22 million units were purchased in bulk from other producers of electricity for re-distribution to consumers.

At 30 June 1973 the total generating capacity of all Queensland power stations was 2,019,258 kW comprising 1,728,500 kW of steam plant, 135,200 kW of hydro-electric plant, 40,558 kW of internal combustion plant and 115,000 kW gas turbine plant.

The Southern electricity network is served by the following steam power stations: Bulimba 'A' (65,000 kW), Bulimba 'B' (180,000 kW), Tennyson 'A' (120,000 kW), Tennyson 'B' (120,000 kW), Swanbank 'A' (396,000 kW), Swanbank 'B' (480,000 kW) and Howard (37,500 kW) together with gas turbine stations—Swanbank 'C' (30,000 kW) and Middle Ridge (60,000 kW). The central network is served by power stations at Rockhampton (52,500 kW steam and 25,000 kW gas turbine) and at Callide (120,000 kW steam). The northern electricity network is supplied by steam power stations at Collinsville (120,000 kW) and Townsville (37,500 kW) and hydro-electric stations at Kareeya (72,000 kW) and Barron Gorge (60,000 kW).

The electrical transmission and distribution systems within the State comprised over 86,000 circuit kilometres of electric lines at 30 June 1973. The main transmission voltages are 275 kV, 132 kV, 110 kV, 66 kV and in certain areas 33 kV. The electricity supply industry's extensive rural electrification program continued using the single wire earth return system.

At 30 June 1973 the total number of electricity consumers was 626,888 of whom 233,596 were in the Brisbane metropolitan area.

Future development

Major development of the State's generating capacity is concentrated on the construction of the power station at Gladstone (1,100,000 kW) and the construction of extensions to Collinsville (60,000 kW). The Gladstone power station will comprise four 275,000 kW generating sets, the first two of which are expected to be commissioned in 1975.

In North Queensland, the commissioning of a 60,000 kW set in 1974 will give the Collinsville station a total generating capacity of 180,000 kW.

The recommendation of the State Electricity Commission for the siting of the major power stations to follow the one being constructed at Gladstone, is now being considered by the Government.

South Australia

A general historical survey concerning the electricity supply industry in South Australia is given in Year Book No. 39, page 1186. The survey traces the development of the industry from its formation in South Australia in 1895 until the establishment of the South Australian Electricity Commission in 1943.

Electricity Trust of South Australia

In 1946 the assets of the Adelaide Electric Supply Co. Ltd were transferred to a newly formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supply and which took over the powers previously vested in the South Australian Electricity Commission. In addition to the powers specified in the Adelaide Electric Supply Company's Acts, 1897-1931, the Trust may supply electricity direct to consumers within a district or municipality with the approval of the local authority, and by agreement with other organisations which generate or supply electricity, arrange to inter-connect the mains of the Trust with those of other organisations, and give or receive supplies of electricity in bulk.

Capacity and production

Of the total installed capacity in South Australia at 30 June 1973, the Electricity Trust operated plant with a capacity of 1,081,000 kW, and is the most important authority supplying electricity in the State. There were approximately 469,000 ultimate consumers of electricity in the State, of whom

462,000 were supplied directly and approximately 7,000 indirectly (i.e. through bulk supply) by the Trust. Its major steam stations are Osborne 'B' (240,000 kW), Port Augusta Playford 'A' (90,000 kW) and Playford 'B' (240,000 kW), and Torrens Island (480,000 kW).

The Trust operates two smaller power stations, the Mt Gambier Station has an installed capacity of 22,000 kW and Pt Lincoln 9,000 kW—both locations are connected with the Trust's interconnected system with 132 kV lines.

The two main fuels used by the Trust are sub-bituminous coal from Leigh Creek for the Port Augusta, Playford power stations and natural gas from the Gidgealpa-Moomba field for the Torrens Island station.

Western Australia

For information on the early history of electricity supply in the metropolitan area, see Year Book No. 39, page 1189.

State Electricity Commission of Western Australia

The State Electricity Commission of Western Australia is empowered to co-ordinate all electricity and reticulated gas undertakings in the State. It is also required to encourage and promote the use of electricity and other power. The Commission provides a uniform tariff electricity supply through an interconnected grid system to the Metropolitan Area, the South-West and Great Southern areas, including an area extending eastward to Koolyanobbing and northwards as far as Ajana beyond Northampton in the Upper Midlands. Areas not connected to the grid system are supplied by independent power stations over which the Commission has varying degrees of control. Eight diesel power stations at Port Hedland (2), Karratha, Roebourne, Kununmarra, Halls Creek, Esperance and Onslow, are operated by the Commission and under the Country Towns' Assistance Scheme 21 diesel power stations and associated supply areas are operated by the Commission on behalf of the Local Authorities.

Since June 1972 the Commission has taken over the electricity supply in another five country towns, adding Kondinin, Dalwallinu, Pithara, Ongerup and Eneabba to towns now supplied from the grid system.

Under the Country Towns' Assistance Scheme the following town undertakings are now operated and maintained by S.E.C.: Yalgoo, Cue, Meekatharra, Wiluna, Gascoyne Junction, Salmon Gums, Nyabing, Pingrup, Denham, Nullagine, Marble Bar, Hyden, Kargarin, Lake Grace, Newdegate, Ravensthorpe, Derby, Leonora, Kulin and Jerramungup.

Natural gas is now reticulated in most areas of Perth metropolitan region and in Pinjarra and Carcoola, whilst simulated natural gas (SNG) is reticulated in the Bunbury area and tempered liquid petroleum (TLP) in Albany. The town of Geraldton was connected by a 132 kV transmission line to Perth's Northern Terminal and a 20 MW gas turbine generator was installed at nearby Utaarra for security and peaking purposes.

Some details of the Commission's activities for the year ending June 1973 are: Number of electricity consumer accounts 284,703 and 54,000 gas consumer accounts; electricity generated 2,985 million kWh; fuel used for electricity generation 1,150,000 tonnes of coal, 163,000 tonnes of fuel oil, 930 million cubic metres of natural gas, and 29,000,000 litres of diesel fuel.

For the same period an increase of 11.96 per cent of electricity sold was recorded whilst an increase of 56.8 per cent was also recorded in gas sold.

Tasmania

A considerable part of the water catchment in Tasmania is at high level, with a substantial natural storage available, and this has made it possible to produce energy at a lower cost than elsewhere in Australia, or in most other countries. Another factor contributing to the low cost is that rainfall is distributed fairly evenly throughout the year with comparatively small yearly variations. Abundant and comparatively cheap supplies of electricity played an important role in attracting industry to Tasmania. However, in recent years Tasmania's advantage in selling electric power has been reduced. A cost differential favouring Tasmania still exists but it is no longer so marked. For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, see Year Book No. 39, pages 1192-3.

Hydro-Electric Commission

In 1929 the Government passed the *Hydro-Electric Commission Act 1929*, which established the Hydro-Electric Commission and vested in the Commission, with some minor exceptions, the right to use the waters of the State of Tasmania, and authorised it to develop and reticulate electric power for all purposes. In 1930 this corporate body took over the State hydro-electric undertaking and the business of the Hydro-Electric Department.

Output and capacity of hydro-electric system

The following table outlines the development of the Tasmanian generating system.

TASMANIAN POWER GENERATING SYSTEM

<i>Station</i>	<i>Year of commission</i>	<i>Head (metres)</i>	<i>Generator capacity (kW)(a)</i>	<i>Assessed annual capacity(b) (million kWh)</i>
COMPLETED STATIONS				
Waddamana 'B'	1949	344	48,000	(c)
Tarraleah	1951	299	90,000	606
Butlers Gorge	1951	56	12,200	71
Trevallyn	1955	126	80,000	542
Tungatinah	1956	306	125,000	557
Lake Echo	1956	173	32,400	76
Wayatinah	1957	62	38,250	278
Liapootah	1960	110	83,700	459
Catagunya	1962	43	48,000	263
Poatina	1965	829	250,000	1,329
Tods Corner	1966	41	1,600	13
Meadowbank	1967	29	40,000	210
Cluny	1967	16	17,000	93
Repulse	1968	27	28,000	161
Rowallan	1968	49	10,450	37
Lemonthyme	1969	159	51,000	284
Devils Gate	1969	69	60,000	298
Wilmot	1971	251	30,600	127
Bell Bay	1971	(d)	120,000	788
Cethana	1971	99	85,000	407
Paloona	1972	31	28,000	131
Fisher	1973	649	43,200	247
<i>Total</i> . . . . .	..	..	1,322,400	6,977
STATIONS UNDER CONSTRUCTION				
Bell Bay, Stage 2	1974	(d)	120,000	788
Gordon, Stage 1	1976	186	288,000	1,466
<i>Total</i> . . . . .	..	..	408,000	2,254
ALL STATIONS				
Grand Total . . . . .	..	..	1,730,400	9,231

(a) Emergency gas turbine generating capacity of 21,000 kW at Bell Bay and 10,000 kW at Macquarie Point (Hobart) not included. (b) Assessed annual capacity is based on simulated operation of the whole system for hydro-electric plant. The figure for thermal plant corresponds to a capacity factor of 75 per cent. (c) Reserve plant only. (d) Thermal station.

The number of ultimate consumers at 30 June 1974 was 160,302.

New capacity

The Hydro-Electric Commission's current construction program is the Gordon River Power Development, Stage 1.

The first stage of the Gordon River Power Development involves the construction of a dam and a power station with a proposed instalment of 288,000 kW capacity with provision for an increase to 320,000 kW. An oil fired thermal station with a single 120,000 kW generator was completed at Bell Bay on the River Tamar in 1970. The second stage of the station which will double the capacity will be completed late in 1974. A further planned development is the Pieman River Scheme on the west coast of the State. It is expected that the first station in the scheme will be commissioned in 1980. The planned capacity of the Pieman River Scheme is 420,000 kW.

The Commission is conducting extensive surveys and investigation of other schemes with a view to further construction after the completion of the present program. It is estimated that the potential which can be developed economically should ultimately harness 3,000,000 kW to the system

Australian Territories

Australian Capital Territory

The supply authority is the A.C.T. Electricity Authority, which took over the functions of the Canberra Electric Supply Branch, Department of the Interior, on 1 July 1963. Supply was first made available in Canberra during 1915 and was met from local steam plant. Connection to the New South Wales interconnected system was effected in 1929, and all requirements are now taken from this system. Locally owned plant consists of 4,000 kW of diesel alternators which are retained as a standby for essential supplies. The total number of ultimate consumers at 30 June 1973 was 54,053. During the year 1972-73 the bulk electricity purchased was 707,913,000 kWh and the system maximum demand was 184,400 kW.

Northern Territory

Electricity is supplied in the main population centres of the Northern Territory by the Electricity Supply Undertaking. The Department of the Northern Territory is responsible for policy, finance and business management of the Undertaking and the Department of Housing and Construction is responsible for operations and technical aspects.

A steam turbo-generating station is operated at Darwin. Alice Springs, Katherine, Pine Creek, Elliot and Daly Waters are supplied from diesel-generating power stations. Electricity for the township of Tennant Creek is at present purchased in bulk from Peko Mines N.L.

The Darwin Power Station has a generating capacity of 80,300 kW and a firm capacity of 56,800 kW. An additional generating unit with a capacity of 23,500 kW is now being installed and is due to be commissioned in 1975.

A new power station was commissioned recently in Alice Springs, and is presently running in parallel with the old station. Together they provide an installed capacity of 19,000 kW and a firm capacity of 13,800 kW. A further set of 5,600 kW capacity is due for commission in April 1975.

In Tennant Creek a new power station is under construction. This has been necessary due to the increased electrical requirement of Peko Mines N.L. and their subsequent ability to continue supplying the town. The Station is expected to be commissioned in early 1975. Initially it will have an installed capacity of 4,680 kW and a firm capacity of 3,120 kW.

The capacities of the other generating stations as at 30 June 1974 were Katherine, installed 6,900 kW, firm 5,200 kW; Pine Creek, installed 900 kW, firm 300 kW; Elliott, installed 140 kW, firm 70 kW; Daly Waters, installed 90 kW, firm 45 kW.

The total number of consumers served in the Territory as at 30 June 1974 was 16,449, an increase of 7.59 per cent over that of the previous year.

Statistical Summary

For a summary of operations of electricity establishments in 1969-70 and 1971-72, see Chapter 21, Manufacturing Industry, pages 736-7.

CHAPTER 28

SCIENCE AND TECHNOLOGY

Further and more detailed information on topics presented in this chapter may be found in the annual reports of the organisations mentioned, particularly the Department of Science, the CSIRO and its divisions, the Australian Atomic Energy Commission, and the Department of Defence. Statistical information may be found in the reports published by the Department of Science on Project SCORE (see page 997) and in the companion report published by the then Office of Secondary Industry of the Department of Trade and Industry *Survey of Industry Research and Development in Australia 1968-69*. More recent data on manufacturing industry is to be found in Department of Manufacturing Industry Bulletin No. 11, November 1974 *R & D in Manufacturing Industry 1971-72*.

In this chapter references will be found to other chapters of the Year Book which deal in greater detail with particular fields of research and development activity.

Overview

Prior to the 1914-18 war, Australian science was based largely on the individual achievements of a few outstanding scientists.

During and after that war, governments in various parts of the world took initiatives aimed at encouraging scientific research and its application to economic growth and national development. Australia was no exception, but the research was concentrated mainly in the government sector and was aimed primarily at agriculture; the universities and industry were little involved.

With the approach of the 1939-45 world war, however, moves were made to extend scientific support for secondary industry. In the CSIR (Council for Scientific and Industrial Research), Divisions created in the period 1937-40 were to play an important part in the rapid development of Australian industry that occurred under the stimulus of war-time needs.

When peace came, expansion of scientific research in general and industrial research in particular continued. This expansion extended beyond government into the universities and industry.

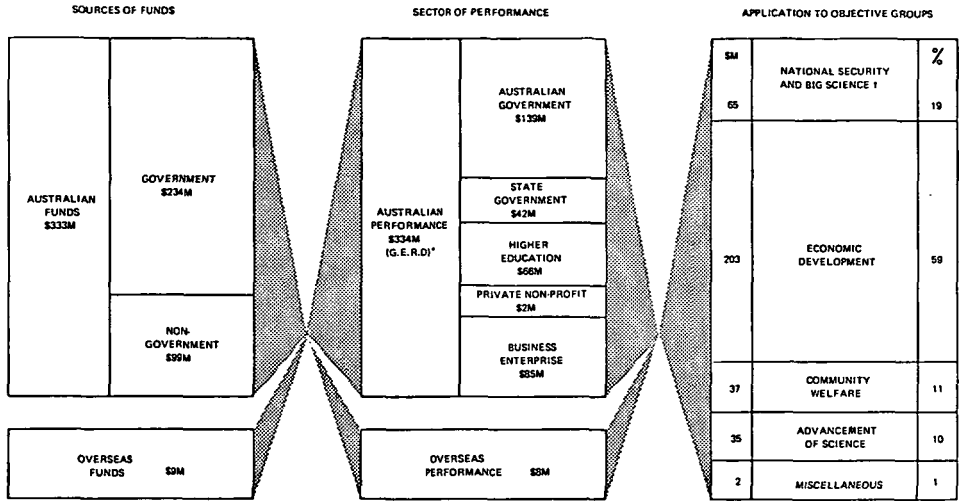
Though agricultural research, even today, absorbs a significant proportion of Australia's research effort, industrial, medical, mining and defence research are now of major importance also. The volume of research in the social sciences remains small, though in Australia as elsewhere in recent years, there has been increasing support for the view that adequate weight must be given in governmental policy-making to the social aspects of national growth.

In 1968-69, the most recent year for which comprehensive data are available, total expenditure on research and development (R & D) in both the natural and social sciences was \$342 million, approximately equivalent to 1.3 per cent of the Gross Domestic Product (\$26,972 million) in that year. The sources of these funds, their disbursement among various sectors of R & D performance, and their application to broad objectives are shown in the chart overleaf.

In 1968-69, governments in Australia provided approximately 70 per cent of the funds devoted to R & D and undertook in their own agencies approximately 55 per cent (in terms of expenditure) of the overall national R & D effort.

Whilst these data serve to illustrate the dominant position occupied by governments in the Australian scientific and technological scene, they do not provide a complete picture since comprehensive information is not available on resources devoted to other scientific and technological activities in Australia.

Broad features of Total Expenditure on R & D in 1968-69



Gross expenditure on research and development.

† Space and nuclear objectives

Broad Features of Total Expenditure on R & D in 1968-69

PLATE 61

Co-ordination and advice

Intergovernmental co-ordination of research and scientific and technical services is effected through bodies such as ministerial councils. Among these are the Australian Agricultural Council, the Australian Minerals Council, the Australian Water Resources Council, the Australian Transport Advisory Council, and the Australian Environment Council. The Councils, which are assisted by standing committees of officials, do not undertake research or the provision of services directly but in some instances provide grants or arrange contracts in support of research. The activities of these bodies are aimed principally at economic, social or environmental goals.

In addition to such co-ordinating bodies, several official advisory bodies have been established to deal with sectoral interests. These include: the Australian Research Grants Committee, the Australian Universities Commission, the CSIRO Advisory Council and State Committees, the Defence Science Board and the Defence Research and Development Policy Committee, and the National Health and Medical Research Council.

Some more recently established bodies have been charged not only with promoting short-term activities in their fields of responsibility but also with making recommendations on long-term arrangements. Examples of such bodies are the Interim Commission for Consumer Standards and the Australian Biological Resources Study Interim Council.

Apart from advisory bodies concerned with particular areas and ad hoc bodies which have been set up from time to time to report on specific matters, there were at the time of writing no standing arrangements to provide governments with comprehensive and integrated policy advice on science and technology. However, the Australian Government has announced its intention to establish a Science Council to fulfil this function, and at the State level, the New South Wales Government has announced its intention to establish a New South Wales Science Council.

Advice to government on scientific and technological issues comes also from various learned and professional bodies. Such counsel may be offered on the initiative of the organisation itself or in response to an official request. For example, the Australian Academy of Science maintains a number of sectional and standing committees which specialise in selected, broad fields of science, and ad hoc advisory committees are appointed by the Academy from time to time to examine and report on specific matters. The Academy has also maintained since 1967 a Science and Industry Forum which brings together leading scientists and industrialists to discuss topics of national significance; a complementary Science and Society Forum was inaugurated in 1973.

Other sources of advice to government include the Academy of the Social Sciences in Australia and the Institution of Engineers, Australia (IEA). The IEA is the largest among the technologically oriented professional organisations and has a present membership of about 27,000.

The most broadly based of the professional bodies is the *Australian and New Zealand Association for the Advancement of Science* (ANZAAS). In a recent reorganisation of its structure, the Association established machinery for giving increased attention to policy issues and its new Science Policy Commission has completed its first major study. Other professional organisations have also been giving increasing attention to matters of scientific and technological policy. Some, such as the IEA and the Royal Australian Chemical Institute, have directed their considerations to issues of concern to broad sections of the scientific and technological communities, while others, such as the Federation of Australian University Staff Associations, have concentrated on sectoral issues.

During 1974 Australia was the focus for the last in a series of national reviews conducted by the Organisation for Economic Co-operation and Development (OECD) to assess the scientific and technological situation in member countries. A three member examining panel spent four weeks in Australia in March and April and during that time held discussions with Ministers and officers of the Australian and State Governments, and with representatives of the universities, industry, learned academics and professional bodies. For the assistance of the examiners a Background Report on Australian Science and Technology was prepared by the Department of Science with the co-operation of both government and non-government agencies. The Examiners' Report was discussed at a meeting in Paris in October 1974. The OECD is to publish an account of the formal exchange of views at this meeting together with the Background Report and the report of the examining panel; it is expected to be available in 1975.

Funding

Project SCORE: R & D funds and objectives

As mentioned above, comprehensive data on the resources devoted to scientific and technological activities in Australia are not available. Therefore, though details of Australian expenditure on research and development activities in the financial year 1968-69 are given below, it must be stressed that the data presented do not include many important scientifically or technologically based programs some of which involve large expenditures.

Coverage and methodology. The first comprehensive survey of expenditure on research and development (R & D) was carried out for the 1968-69 financial year. This survey, known as Project SCORE (Survey and Comparisons of Research Expenditure) covered expenditure on R & D in the natural and social sciences in all sectors of the Australian economy. The physical, chemical, biological, earth, engineering, agricultural and medical sciences were included in the natural sciences. Economics, education, management, operations research and sociology were included among the social sciences. The Project was carried out principally by means of questionnaires and, in order to provide direct comparison with other OECD countries, followed (with some exceptions) guidelines laid down by the OECD.

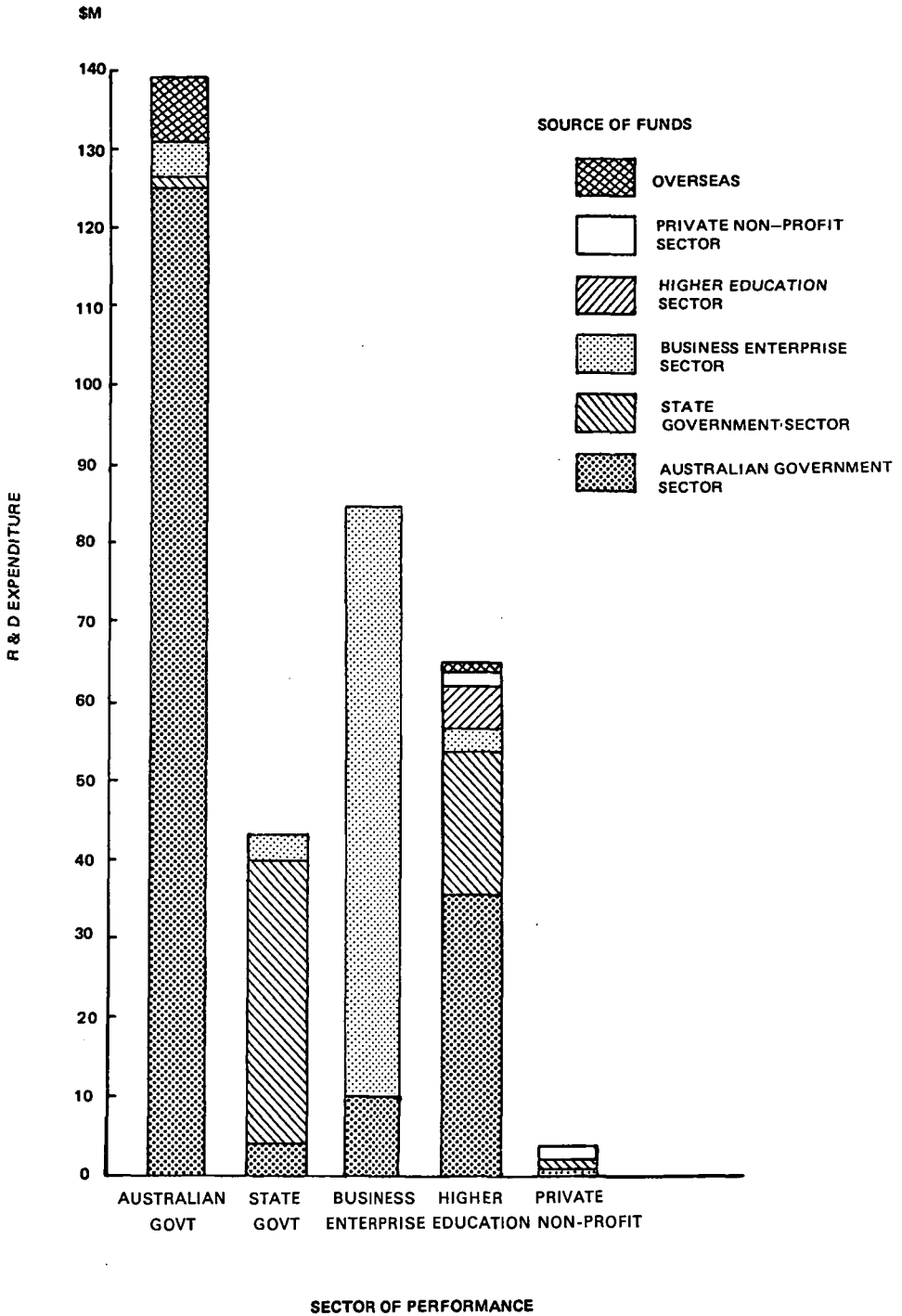
For the purposes of the survey, *research* was defined as systematic critical investigation directed towards increasing the general body of knowledge about, or understanding of, the subject studied. Within this category, *basic research* was taken to be original investigation of which the primary aim was more complete knowledge or understanding of the subject under study, while *applied research* was taken to be original activity of which the primary aim was the solution of a recognised practical problem. Work was defined as *development* where it involved the systematic use or adaptation of research results directed towards the introduction of new or improved products, processes, systems or methods.

Six survey reports were published. In addition to a summary report dealing with the overall national situation, separate reports cover the following sectors: Australian Government, Manufacturing and Mining Industry, State Governments, and the Universities and Private Non-Profit Institutions.

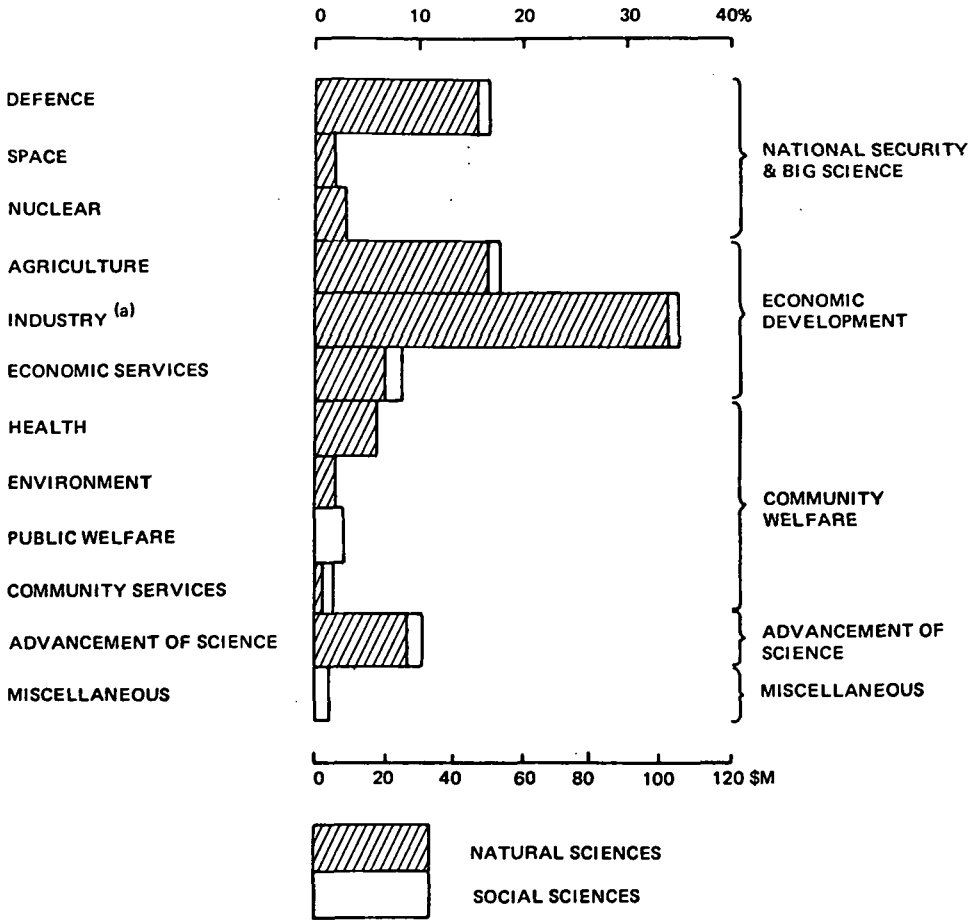
A second survey for the 1973-74 financial year, or 1974 calendar year for higher education bodies, is now in progress.

All Sectors. The broad features of total expenditure on R & D in 1968-69 were shown in the chart on page 996 (plate 61). Plate 62 page 998 shows the distribution of sources of funds provided for R & D by sector of performance.

The distribution of Gross Expenditure on Research and Development (G.E.R.D.) between broad objectives is shown in Plate 63, page 999.



Sources of Funds for R and D by Sector of Performance



(a) The natural and social sciences were not separable for Business enterprise sector data: these were included *in toto* in the natural sciences.

Gross Expenditure on Research and Development by Objectives.

PLATE 63

Details of the distribution of expenditure in 1968-69 between basic research, applied research and development are not available for the business enterprise sector. Hence, reliable data on the distribution of expenditure for these categories cannot be given for the economy as a whole. However, the distribution within the other four sectors was as follows:

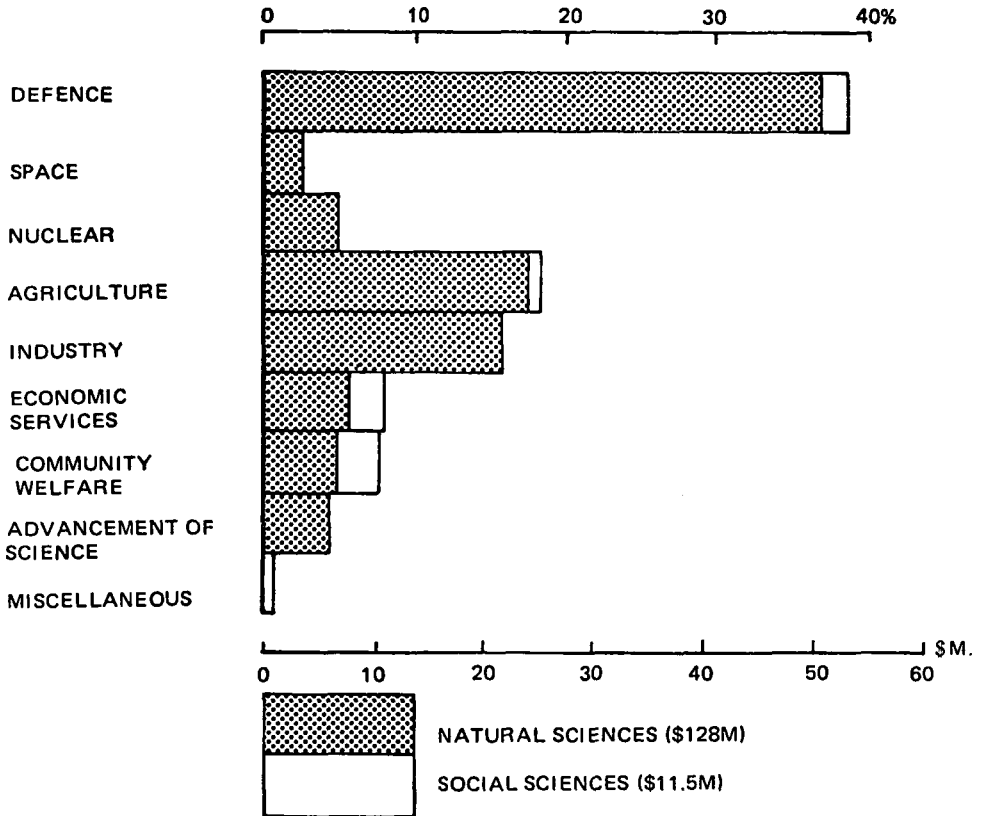
DISTRIBUTION OF R & D EXPENDITURE BY TYPE OF ACTIVITY AND SECTOR OF PERFORMANCE(a)

(Per cent)

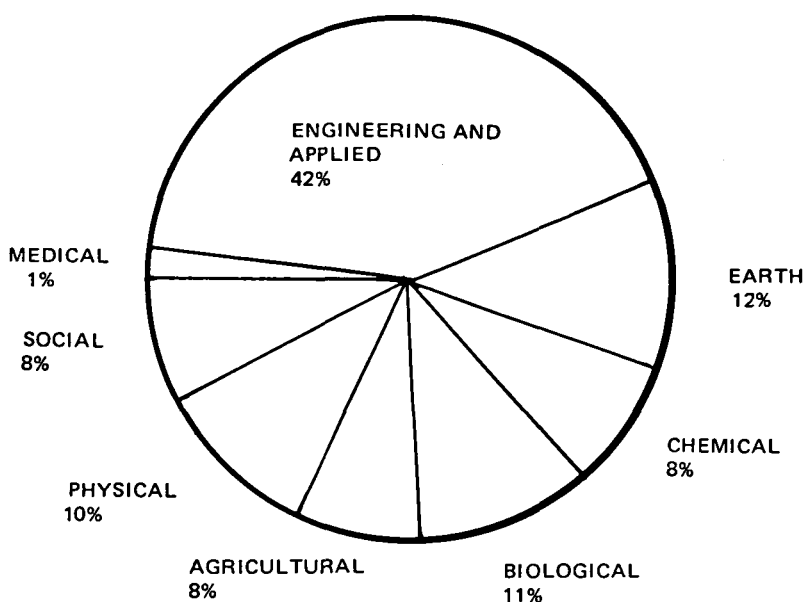
	<i>Australian Government sector</i>	<i>State Government sector</i>	<i>Higher education sector</i>	<i>Private non-profit sector</i>	<i>Total(a)</i>
Basic research	12	5	77	18	28
Applied research	50	62	19	36	44
Development	38	33	4	46	28
Total	100	100	100	100	100

(a) Excludes business enterprise sector.

Australian Government sector. Within the Australian Government sector, total R & D expenditure was \$198 million, 91 per cent of funds coming from within the Australian Government. Of the \$18 million that came from other sources, about \$8 million was from overseas, while about \$7 million came from levies on primary producers. Seventy per cent of the total expenditure on R & D was performed in the Government's own agencies. Distribution of this expenditure by objectives and by field of science is shown in Plates 64 and 65.



Intramural Expenditure in the Australian Government Sector by Objectives



Intramural Expenditure in the Australian Government Sector by Field of Science.

PLATE 65

Combined intramural R & D of the three major Australian Government performers of R & D grew at a rate averaging about 9 per cent per annum over the five-year period, 1963-64 to 1968-69. These major performers were the Commonwealth Scientific and Industrial Research Organization (CSIRO), the former Department of Supply, and the Australian Atomic Energy Commission (AAEC). This average growth rate was approximately the same as that of the Australian Gross Domestic Product (GDP) over the same five-year period.

Of the funds (\$59 million) that were channelled to R & D performed outside the Government's agencies:

- almost half (\$27 million) went to the higher education sector;
- about one-third (\$21 million) went to the business enterprise sector;
- approximately 85 per cent was in the form of grants;
- only about 5 per cent was for R & D contracts.

Funds provided through R & D granting schemes supported by the Australian Government increased rapidly during the later 1960s. Annual disbursements through these schemes more than doubled between 1964-65 and 1968-69. A diagrammatic representation of the principal ways in which Australian Government support is channelled into R & D is shown in Plate 66, page 1002.

State government sector. Within the State government sector, agricultural research dominated R & D activity in 1968-69. Total R & D expenditure by the State governments was \$62 million, of which \$42 million was for R & D performed in the governments' own agencies. Plate 67, page 1003 shows the distribution of this \$42 million by field of science.

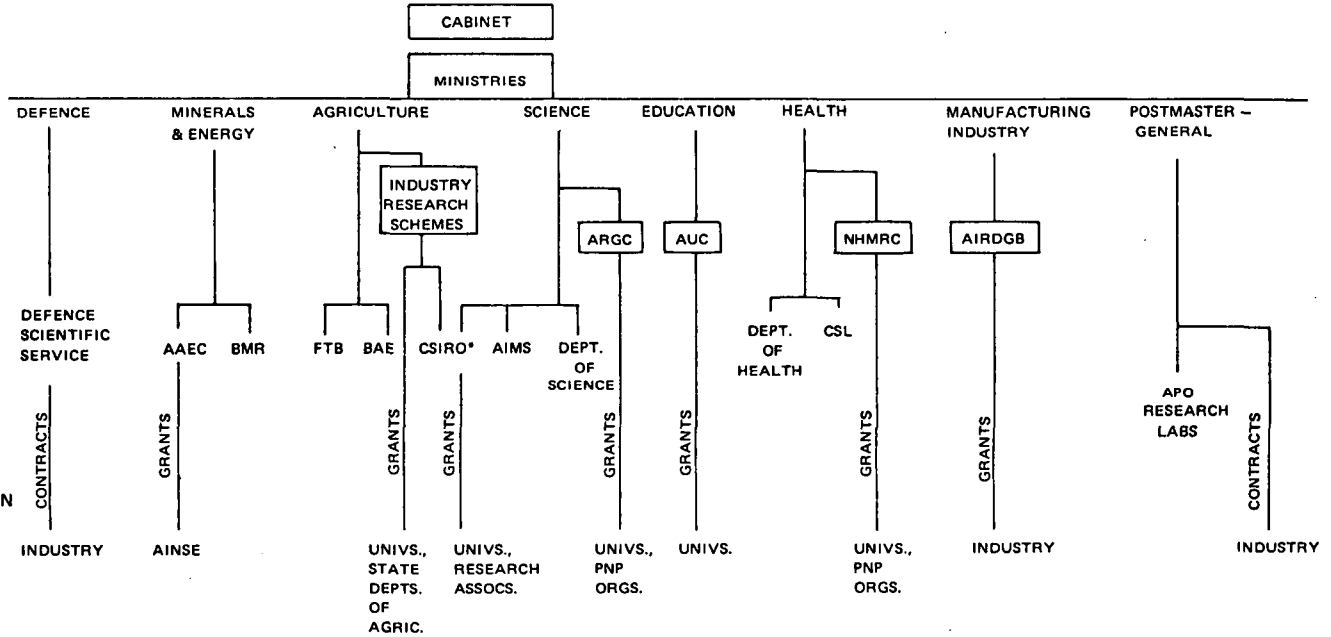
MAJOR CHANNELS OF AUSTRALIAN GOVERNMENT FINANCIAL SUPPLY FOR R & D

PLATE 66

R & D FUND GRANTING BODIES

R & D PERFORMANCE WITHIN AUSTRALIAN GOVERNMENT AGENCIES

R & D PERFORMANCE OUTSIDE OF AUSTRALIAN GOVERNMENT AGENCIES

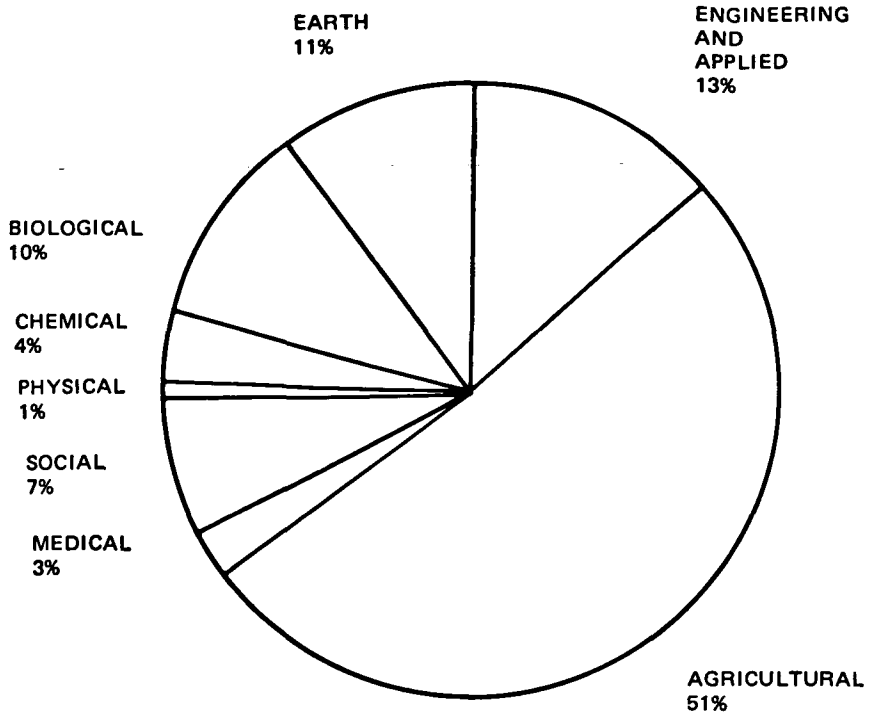


CSIRO is located within Ministry of Science

ABBREVIATIONS USED:

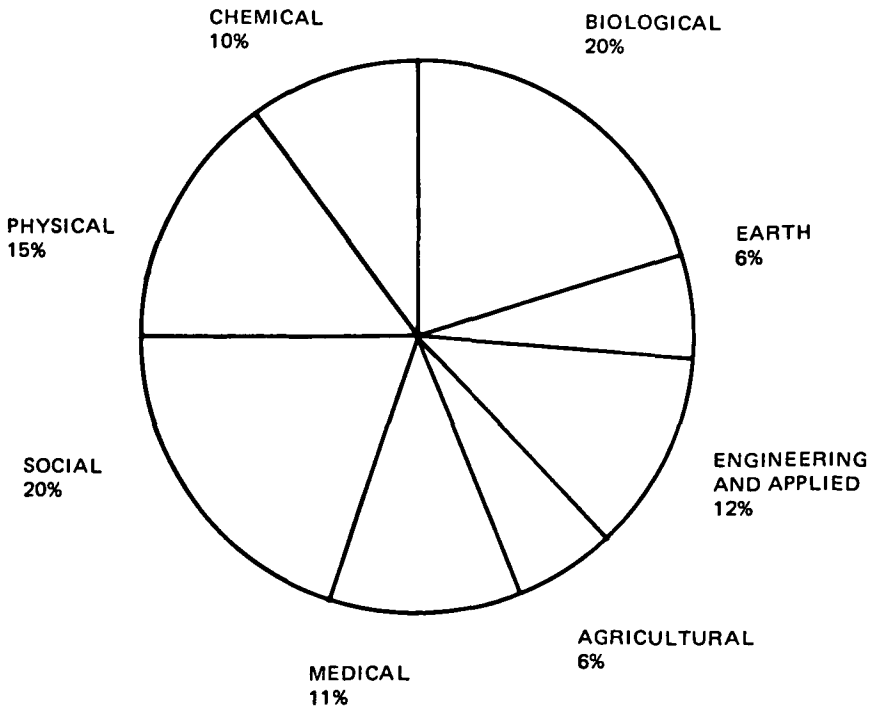
AAEC Australian Atomic Energy Commission
 AIMS Australian Institute of Marine Science
 AINSE Australian Institute of Nuclear Science and Engineering
 AIRDGB Australian Industrial Research and Development Grants Board
 APO Australian Post Office
 ARGC Australian Research Grants Committee

AUC Australian Universities Commission
 BMR Bureau of Mineral Resources
 BAE Bureau of Agricultural Economics and Engineering
 CSIRO Commonwealth Scientific and Industrial Research Organisation
 CSL Commonwealth Serum Laboratories
 FTB Forestry and Timber Bureau
 NHMRC National Health and Medical Research Council
 PNP Orgs. Private Non-Profit Organisations



Intramural Expenditure in the State Government Sector by Field of Science.

PLATE 67



Intramural Expenditure in the Higher Education Sector by Field of Science.

PLATE 68

Higher Education sector. Within the Higher Education Sector, universities performed almost all of the R & D conducted. The distribution of intramural R & D expenditure by field of science was determined as in Plate 68, page 1003. Approximately 85 per cent of intramural expenditure was incurred by university departments with both teaching and research commitments, the remainder by departments engaged primarily in research activities. Three universities (Australian National, Melbourne, and Sydney) accounted for 46 per cent of total intramural R & D expenditure by Australian universities in 1969.

Sources of funds for R & D performed by the universities were: 56 per cent from the Australian Government sector, 28 per cent from the State Government sector, and 16 per cent from other sources.

Business Enterprise sector. For the business enterprise sector, expenditure by manufacturing and mining industries on industrial research and development (I R & D) performed in Australia was approximately \$85 million. The distribution of expenditure among principal industry groups engaged in R & D was as follows:

	per cent
Industrial machinery and equipment	20
Chemical, petroleum and coal products	19
Transport equipment	19
Basic metal products	13
Fabricated metal products	7
Food, beverages and tobacco	7
Mining	5
Other	10

About 50 per cent of I R & D expenditure was incurred by subsidiaries of overseas-owned firms and a further 10 per cent by enterprises with significant overseas ownership. I R & D expenditure by overseas-owned enterprises was mainly concentrated in the transport equipment and the chemical, petroleum and coal products industries.

Expenditure by manufacturing and mining industries of approximately \$85 million on I R & D, performed within Australia contrasts with payments by these industries of a further \$34 million in 1968-69 to overseas organisations for patents, licences and technical know-how.

Two industries accounted for 61 per cent of this overseas expenditure. These were: industrial machinery and equipment (33 per cent), and chemical, petroleum and coal products (28 per cent). About three-quarters of this expenditure was by industries wholly or mainly owned overseas.

Sales of I R & D totalled \$2.5 million in 1968-69, approximately three-quarters of which was earned by wholly or mainly Australian-owned enterprises.

Balance of payments figures indicate the following receipts and payments made for royalties and copyrights.

	(\$ million)					
	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73p
Receipts	6	7	7	6	4	4
Payments	64	63	68	64	56	75

Private Non-Profit sector. In 1968-69 total expenditure on R & D by the Private Non-Profit sector was about \$3 million, some 55 per cent of the funds coming from within the sector and most of the balance coming from government sources.

Four organisations accounted for about 65 per cent of R & D expenditure within this sector: the Walter and Eliza Hall Institute of Medical Research (Victoria), the National Safety Council of Australia, the Institute of Medical Research, Royal North Shore Hospital (New South Wales), and the Royal Children's Hospital Research Foundation (Victoria).

Health (90 per cent) and Public Welfare (9 per cent) were the principal objectives of research and development activity within the sector.

Manpower

A comprehensive survey of manpower in Australia was made in conjunction with the 1971 national population census. This revealed that 8.1 per cent of the workforce came within the classification 'highly qualified personnel'*. Scientific and technical personnel† constituted only 21 per cent of this category, or 1.7 per cent of the workforce.

In 1971, 3.6 per cent of the total Australian population held tertiary qualifications and 2.5 per cent held technical qualifications. However, the emphasis was in areas other than science and technology since only 0.8 per cent of the total population held tertiary qualifications in the physical sciences and technology. The distribution, over major fields, of scientific and technical personnel‡ holding qualifications above technical level in 1971 was as follows:

<i>Field</i>	<i>Persons</i>
Natural sciences	30,894
Engineering, building technology	57,018
Architecture	6,679
Agriculture and forestry	9,432
Total	104,023

In 1968-69 approximately 43,000 man-years of effort were devoted to the performance of R & D in Australia. This represented some 0.9 per cent of the total effort of the workforce in that year. Approximately 90 per cent of the total R & D effort was expended in work in the natural sciences and the balance in the social sciences. The total manpower effort in R & D within the Australian Government, State government, Higher education and private non-profit sectors (relevant information is not available for the business enterprise sector) was distributed among major objective groups as follows:

<i>Objective</i>	<i>Per cent</i>
Economic development	60
National security and big science(a)	17
Advancement of science	12
Community welfare	11

(a) Includes defence, civil space and civil nuclear R & D.

Some 45 per cent of the R & D effort in these sectors was contributed by professionally qualified scientists and engineers; technicians and draftsmen contributed a further 23 per cent and the balance came from other support staff.

In the business enterprise sector, approximately 13,000 professionally qualified scientists, engineers, technicians, draftsmen and supporting staff were engaged on I R & D in manufacturing and mining industries in 1968-69, representing about 2.0 per cent of the total workforce in those enterprises conducting I R & D.

Approximately 64 per cent of the staff engaged full-time on I R & D were employed by three industry groups:

<i>Industry group</i>	<i>Per cent</i>
Industrial machinery and equipment	24
Chemical, petroleum and coal products	21
Transport equipment	19

* Defined according to the International Standard Classification of Occupation. Includes persons holding technical non-university tertiary, bachelor and higher degrees, and employed as professional, technical, administrative, executive or managerial workers.

† Comprising the occupational classifications of architects, engineers and surveyors, chemists, physicists, geologists and other physical scientists; biologists, veterinarians, agronomists and related scientists, draftsmen and technicians.

‡ Medical, dental, health and paramedical have been excluded because of inability to separate between practitioners and research staff. This group comprised 52,859 persons; 26,605 of these had at least first degrees.

Resources and services

Although power to regulate the development and utilisation of Australia's natural resources rests largely with the States, the Australian Government, in part because of its jurisdiction in the control of Australia's overseas trade, also plays an important role. Extensive machinery exists for consultation and collaboration between the Australian and State governments in relation to the development and management of natural resources.

Several important resources and services are dealt with elsewhere in this Year Book and are thus not included in this chapter.

These include:

- Transport (chapter 12)
- Communications (chapter 12)
- Health (chapter 14)
- Agriculture (chapter 22)
- Water (chapter 23)
- Forestry (chapter 24)
- Fisheries (chapter 25)
- Minerals and Energy (chapters 26, 27)

Soil resources

Since 1938 all State Governments, except Tasmania, have enacted legislation relating to the mitigation of erosion and the conservation of soil resources. The States of New South Wales and Victoria have set up organisations to deal specifically with the problem of soil erosion whilst, in other States, departments of agriculture discharge that function.

A Standing Committee on Soil Conservation was established in 1946. It comprises the heads of soil conservation bodies in the States and representatives of relevant Australian Government agencies. The Committee co-ordinates activities of interest to its member bodies such as the survey of erosion throughout Australia which was carried out in the late 1960s, and the development of co-operative arrangements for in-service training of technical personnel.

Fauna and flora resources

Responsibility for the conservation and management of fauna and flora resources rests, in the main, with the State Governments. The Australian Government, however, has responsibility for such resources in its own Territories.

During the last century, as each State became established, museums and botanical gardens containing herbaria were set up. Studies of fauna and flora were carried out by these bodies and by the universities. Since the establishment of CSIRO, various divisions of the Organization have also carried out this work but an important part of total Australian research into biological resources continues to be undertaken in the museums and herbaria of the State governments.

The Australian Government recently announced a decision to establish a National Parks and Wildlife Commission and Service whose functions include care and management of national parks and wildlife in Australia and its Territories, conduct of ecological studies to determine additional areas which should be reserved as national parks and nature reserves, and survey and assessment of wildlife populations with particular reference to endangered species. The Government has also made funds available to stimulate taxonomic and ecological studies of Australian fauna and flora resources.

Environmental protection

Responsibility for most aspects of environmental protection rests with the State governments, and all of these have enacted legislation to regulate those operations of governmental and private enterprises that may have a deleterious effect on the physical environment.

The Australian Government has responsibility for environmental protection in its own Territories, in respect to the operations of its own agencies within the States, and in relation to projects or activities carried out by other authorities with the aid of Australian Government funds. It is also concerned with the enforcement of provisions of relevant international conventions to which Australia is a signatory, and with the environmental protection aspects of overseas trade.

The various governments collaborate in environmental and conservation matters through three Ministerial Councils:

- the Australian Environment Council, which provides a framework for consultation on environmental matters;
- the Council of Nature Conservation Ministers, which is concerned with preservation of wildlife and the establishment and management of national parks;
- the Australian Water Resources Council, which is concerned with the assessment, development and use of national water resources.

All of the governments have designated ministers who are concerned with the administration of broad policies for environmental protection. In some cases, governments have implemented policies requiring the provision for public scrutiny of environmental impact statements as a prerequisite to approval of new development projects or activities with significant environmental consequences.

The Australian Government has recently established a Bureau of Environmental Studies within the Department of the Environment and Conservation. This Bureau is charged with reviewing requirements for environmental research, assessing the extent to which such requirements are being satisfied through programs of various agencies, and promoting or directly undertaking research needed to fill gaps in the overall program.

Meteorology

The Bureau of Meteorology, which is a Division of the Department of Science, is the national authority for providing weather forecasting and warning services, and general meteorological information and consultative advice. Users of these services are the general public, defence forces, civil aviation and marine authorities, and specialist groups in primary and secondary industries.

Programs of research are carried out in support of these services, often in co-operation with other institutions concerned with meteorological science, including universities and the Environmental Physics Research Laboratories of the CSIRO. The Australian Numerical Meteorology Research Centre, which specialises in the development of numerical model techniques for predicting atmospheric behaviour, is operated jointly with CSIRO.

At June 1974, the Bureau had a staff establishment of approximately 1960, including about 450 professionals. In addition, a large number of persons assist part-time in maintaining the Bureau's extensive observation network.

Total expenditure in 1973-74 was approximately \$24.5 million. About 65 per cent of funds was provided by the Australian Government through direct appropriation, while all but a small portion of the balance came from charges made to other Australian Government agencies, principally for meteorological services in support of civil and defence aviation activities.

Ionospheric Prediction Service

The Ionospheric Prediction Service Branch of the Department of Science (IPS) exists to assist users of radio communications to achieve the most effective and efficient use of radio transmissions that are influenced by or dependent on the ionosphere. The staff of the Branch make regular measurements of the state of the ionosphere above Australia and its territories and of the sun, and issue both short and long term predictions of the state of the ionosphere as it applies to radio communication.

Research into physical phenomena affecting the condition of the ionosphere forms part of the regular activity of the IPS.

Scientific and technological information services

Information services for scientists and technologists are provided through National and State libraries, and through libraries operated by scientific and technological agencies of the Australian and State Governments, by tertiary education institutions, and by industrial organisations.

In 1971 the Council of the National Library established a Scientific and Technological Information Services Enquiry Committee (STISEC) to investigate, report and make recommendations on the need for scientific and technological information (STI) services in Australia. The Committee's Report was submitted to the Australian Government in May 1973.

The Committee recommended, inter alia, that the Australian Government establish a national STI Authority to advise on the development of a national STI policy, and to promote the orderly development of scientific and technological library and information services in Australia. The Government has recently approved a two-year program of studies and consultations to determine the feasibility of an Australian Library-Based Information System (ALBIS) which will comprehend the major STISEC recommendations. These studies will be undertaken by the National Library of Australia.

Government research agencies

The Commonwealth Scientific and Industrial Research Organization (CSIRO)

CSIRO is the largest scientific research organization in Australia. It is a statutory body established in 1949 to replace the former Council for Scientific and Industrial Research (CSIR).

The main function of CSIRO is to carry out scientific research and investigations in connection with Australia's primary and secondary industries. CSIRO has at present 36 research Divisions and 5 smaller research Units, a number of them being linked together in laboratory groups. The wide range of their activities is illustrated by the following table.

GENERAL DISTRIBUTION OF RESEARCH EFFORT IN CSIRO

(In terms of non-capital expenditure for 1973-74)

<i>Field</i>	<i>Divisions and units</i>	<i>\$ million</i>	<i>Per cent</i>
Crops and pastures	Agro-industrial Research Horticultural Research Irrigation Research Plant Industry Tropical Agronomy	9.9	13.5
Livestock	Animal Genetics Animal Health Animal Physiology Nutritional Biochemistry	9.9	13.5
Land use	Land Resources Management Land Use Research Soils	6.6	9.0
Insects and wildlife	Entomology Wildlife Research	5.6	7.6
Marine science	Fisheries and Oceanography Marine Biochemistry	2.7	3.8
Environmental physics	Atmospheric Physics Cloud Physics Environmental Mechanics	2.4	3.3
Wool processing and textiles	Protein Chemistry Textile Industry Textile Physics	5.0	6.8
Food	Food Research Wheat Research	4.2	5.7
Mineral exploration, processing and properties	Chemical Engineering Minerology Mineral Chemistry Mineral Physics	6.4	8.7
National standards	National Measurement Laboratory	4.4	6.0
Chemical and physical research of industrial interest	Applied Organic Chemistry Chemical Physics Chemical Technology Tribophysics	6.1	8.4
Engineering and construction	Applied Geomechanics Building Research Mechanical Engineering Solar Energy Studies	5.6	7.6
Radiophysics	Radiophysics	2.7	3.7
Computing and statistics	Computing Research Mathematics and Statistics	1.7	2.4

The powers and functions of CSIRO are prescribed in the *Science and Industry Research Act 1949-1973* under which the Organization operates. In brief these are as follows:

- to carry out scientific research and investigations in connection with Australian primary and secondary industries or any other matter referred to it by the Minister for Science,
- to train scientific research workers, and award studentships,
- to make grants in aid of scientific research,
- to recognise and support research associations,
- to maintain national standards of measurement,
- to disseminate scientific and technical information,
- to publish scientific and technical reports, and
- to liaise with other countries in matters of scientific research.

CSIRO has a total staff of some 6,700 persons located in more than 100 laboratories and field stations throughout Australia. About one-third of the staff are professional scientists.

In 1973-74, CSIRO operations cost approximately \$90 million, more than 80 per cent of which was met by the Australian Government through direct appropriation. Of the remainder, about four-fifths was concerned with research for various primary industries and came from statutory trust funds most of which derived from levies on production, and a supplementary contribution by the Australian Government. The balance of operating expenses, comprising less than 4 per cent of the total, came from individual companies, other Australian Government agencies, overseas instrumentalities and private foundations.

The Australian Atomic Energy Commission (AAEC)

The AAEC was established by the Australian Parliament under the *Atomic Energy Act 1953* as a statutory body whose main functions are to facilitate the development of Australia's resources and the utilisation of various forms of nuclear energy within the Australian economy.

Moving in its earliest days towards the planning and construction of a nuclear research establishment at Lucas Heights near Sydney, the Commission arranged for a nucleus of scientists and engineers to obtain training and experience through overseas attachments, mainly in the United Kingdom. By the late 1950s an R & D program had been initiated at its research establishment.

The AAEC's activities are controlled by a Commission which is responsible to the Minister for Minerals and Energy. The Atomic Energy Act provides for the Commission to consist of five Commissioners including a Chairman.

The Commission's current program places emphasis in the following areas:

Nuclear power: the assessment of the potential contribution and the total implications of nuclear power in the co-ordinated development of Australia's energy resources.

Safety and the environment: the establishment of adequate arrangements for safety assessment, licensing and regulation of all nuclear facilities including those for the long-term management and disposal of radioactive wastes, in order to control potential hazards to health and the environment.

Uranium and nuclear fuels: the development of uranium resources, consideration of the desirable extent and timing of uranium processing including enrichment, and the development of a technical base on which Australia could establish its own uranium enrichment technology.

Radioisotopes and radiation: to continue to meet the expanding requirements for radioisotopes, particularly in medicine, and further to explore the benefits to be achieved by the application of radioisotopes and radiation in industry.

International relations: to assist in matters arising from Australia's membership of the International Atomic Energy Agency and the OECD-Nuclear Energy Agency and in matters arising from Australia being a party to the Treaty on the Non-Proliferation of Nuclear Weapons.

At June 1974 the Commission employed 1,241 staff of whom 354 were professional. For the year 1973-74 total expenditure was about \$15.7 million of which \$13.3 million was spent on research.

The AAEC participates in the activities of the Australian Institute of Nuclear Science and Engineering. The Institute, which has a corporate membership comprising the Commission and the Australian universities, is concerned with the awarding of studentships, fellowships and research grants, with the organising of conferences and with arranging the use of AAEC facilities by postgraduate students. In 1973 the Institute's expenditure was about \$330,000.

The Antarctic Division, Department of Science

Australia has been active in research and exploration in the Antarctic region since early in the present century, but the overall effort has expanded appreciably since the 1940s when the Government established the Australian National Antarctic Research Expeditions (ANARE) and the Antarctic Research Division.

Services provided by the Division in relation to research expeditions include:

- the establishment and maintenance of three permanent multi-disciplinary stations on the Antarctic continent and one on sub-Antarctic Macquarie Island;
- the mounting of annual and shorter term research expeditions;
- the co-ordination of activities of agencies involved with ANARE; the Antarctic Division itself, the Bureau of Meteorology and the Ionospheric Prediction Service of the Department of Science; the Bureau of Mineral Resources, Geology and Geophysics, and the Division of National Mapping of the Department of Minerals and Energy; certain sections of the Army; various university departments; and the CSIRO.

In addition to its general support function, the Division directly undertakes research in such fields as cosmic ray and upper atmosphere physics, glaciology, Antarctic biology and medical science matters relevant to Antarctic conditions. Personnel at research stations include meteorologists, physicists, glaciologists, biologists and logistics staff.

At any given time the total staff complement of the Division varies between 160 and 190 persons about half of whom are engaged on a short-term basis to man annual expeditions and provide general support. The permanent staff includes about 15 scientists. Expenditure by the Division in 1973-74 was approximately \$3.8 million.

Australia is a signatory to the Antarctic Treaty, and many of its scientific activities in Antarctica are undertaken in collaboration with other signatory countries.

Australian Institute of Marine Science

The Australian Institute of Marine Science is being established on a 190 hectare site within a national park at Cape Ferguson, 50 kilometres south of Townsville. A 5,600 square metre laboratory complex and research vessel harbour are to be constructed by late 1976 at an estimated cost of \$10 million. In the interim, temporary accommodation at Cape Pallarenda, just north of Townsville, is being used by research groups.

The Institute will be mainly concerned with research, emphasising multi-disciplinary projects focused on tropical marine sciences. Initial efforts will be directed towards the Coral Sea, the Great Barrier Reef, and the North Queensland coast. Scientists are being selected for a marine pollution group and plans are being developed for a marine geology group to investigate coral reef structure. By the time a research vessel becomes available, a physical oceanography group will have been formed to research tidal and current phenomena.

By the end of 1976-77, the Institute is expected to have a scientific staff of about 75 composed of about 25 scientists and 50 scientific officers and technicians; there will be 75 additional support staff. At the end of 1974, 30 staff members had been appointed; an additional 11 are expected by mid-1975. No undergraduate teaching will take place but it is expected that co-operative post-graduate programs will be developed with Australian universities.

Approval has been obtained for the design of a 24 metre research vessel and a second vessel of 37 metres is envisaged.

Defence Science

Much of the research and development effort conducted by the Australian Government falls into this category. A fuller discussion may be found in Chapter 4, Defence.

Research in industry

Contrary to the situation in most industrialised countries, a smaller proportion of the overall R & D effort in Australia is undertaken in private industry than in government agencies. However, while precise statistics are not available, industry's percentage contribution to total R & D performance is believed to have increased in the period since 1964-65, partly under the stimulus of the grants scheme introduced by the Australian Government with the aim of encouraging private business enterprises to increase the levels of their expenditure on industrial research and development (I R & D).

The most recent comprehensive data on I R & D expenditure in industry relate to the year 1971-72*, and indicate that the broad industry groups—other industrial machinery and household appliances; chemicals, petroleum and coal products; and transport equipment—accounted jointly for some 53 per cent of total I R & D expenditure.

Other features of the situation in that year were:

 firms with 25 per cent or more foreign equity accounted for about 58 per cent of I R & D expenditure;

 about 59 per cent of total I R & D expenditure was incurred by only about 7 per cent of enterprises that devoted funds to I R & D;

 large rather than small enterprises tended to expend funds on I R & D.

* R & D in *Manufacturing Industry 1971-72*, Department of Manufacturing Industry, Canberra, Bulletin No. 11, November 1974.

The Australian Government has encouraged technological innovation by industry directly through financial incentives and indirectly through patent legislation, taxation and educational measures which provide a favourable economic climate for such innovation. In recent years the principal avenue of direct assistance has been the Industrial Research and Development Grants Scheme.

In 1972-73 some 900 firms applied for grants under the Grants Scheme. This represented an increase of about 70 per cent on the number of applicants in the Scheme's first year of operation. Prior to the introduction of the grants, about 60 per cent of these 900 firms had not incurred any expenditure on I R & D as defined in the Scheme. From the Scheme's inception in 1967 up to June 1973, \$58 million was disbursed. It is estimated that grants for the 1973-74 financial year will amount to about \$16.5 million. Grants received by firms are taxable, hence the net incentive to industrial R & D is rather less than the above figures imply. The broad industry groups that have benefitted principally under the Scheme are basic metal products, industrial machinery and equipment, electric and electronic apparatus, transport equipment and chemicals.

Other fields of activity which to some extent involve the adoption by industry of new technology, and which attract financial support from the Australian Government, include industrial design and product standardisation. The Industrial Design Council of Australia and the Standards Association of Australia received subsidies from the Government of \$340,000 and \$850,000 respectively in 1973-74.

Metric conversion

Related to product standardisation is the conversion to the metric (SI) system of weights and measures which is now in progress in Australia. The conversion program is being developed and implemented under the guidance of a Metric Conversion Board established by the Australian Government. Because implementation of the program depends in large measure on general community co-operation, the Board is assisted by advisory groups representative of all sectors of the community.

Industry organisations

A number of organisations aiming, wholly or in part, to support and encourage I R & D have been established within industry. Some have largely sectional interests, such as the Australian Engineering and Building Industries Research Association, the Australian Mineral Industries Research Association, and the Bread Research Institute.

Organisations with broader interests and roles include the following.

The Australian Industrial Research Group (AIRG). This is an association, founded some ten years ago, of managers of research and development employed in Australian industry. Its members, numbering about 50, control most of the R & D expenditure in Australian industry. Objectives of the Group are to improve the quality of research management in Australia and to stimulate and develop an understanding of research as a force in economic, industrial and social activities. The Group's activities have included conduct of a survey of R & D expenditure by Australian industry, sponsorship of studies into science education and the electronics industry, and provision of advice on desirable amendments to the Industrial Research and Development Grants Act.

The National Association of Testing Authorities (NATA). This Association was established in 1947 at the direction of the Australian Government. NATA is the recognized body for the registration as testing authorities of both government and industrial laboratories within a wide area of science and technology. Laboratories receive registration only after careful assessment to ensure that they meet the required standards. At June 1973 the Association had registered 925 laboratories including 697 in industry, 190 in Australian and State government establishments and 38 in educational institutions.

The Standards Association of Australia (SAA). This Association was founded in 1922 to publish and promote the adoption of Australian standards. Standards are prepared only after a full enquiry has shown that the project is a desirable one and worth the effort involved. Work is based on voluntary agreement and recognition of the community of interest of producer and consumer.

The Industrial Design Council of Australia. This Council is a voluntary association of leading industrialists, academics and other professionals whose aim is to accord design appropriate status in the production process. In particular the Council aims to improve productivity, sales and profits, and to promote a healthy, vigorous manufacturing industry which will in turn contribute to the economic and cultural welfare of the nation. The Council is also concerned to promote a wider understanding of industrial design, and the development of a strong profession in Australia through, among other things, appropriate education for industrial designers.

The Productivity Group Movement. Productivity Groups have been established throughout the country with the object of improving productivity and efficiency by exchanging ideas, reviewing experience and by discussion of the practical problems of group members. The Department of Labor and Immigration promotes and actively participates in the productivity group movement. In 1973 there were some 250 groups comprising over 5,700 member undertakings.

The Industrial Research Institute of South Australia Incorporated. This Institute was established by the Government of South Australia in 1971 with the aim of promoting and co-ordinating industrial research activities within that State. The Institute offers advisory services to individual companies in relation to their research needs, and maintains various information services to South Australian industry generally. Industry, research organisations, and the universities in South Australia, along with the South Australian Institute of Technology, are represented on the governing Council.

The Australian Innovation Corporation Limited (AICL). Some 40 Australian companies are shareholders in this Corporation which was established in 1970. It provides both advice and funds to assist in the promotion and commercialisation of local research, invention and development.

The National Small Business Bureau. This Bureau, established by the Australian Government, is charged with the task of developing a comprehensive and co-ordinated national program of assistance to small business. This includes the bringing together of special expertise in business management, industrial technology, industrial relations and other subjects relevant to promoting and assisting the efficient development of small business.

Research in universities and colleges

Comprehensive data on R & D expenditure and activities in the universities during 1969 were yielded by the Project SCORE survey, to which reference has been made above. That survey provided information on sources of R & D funds, their specific disbursement by way of intramural and extramural work, and their allocation among objective groups. Colleges of Advanced Education were not included in that survey but, in the expectation that their R & D effort will have developed in the meanwhile, they are being surveyed in the current Project SCORE survey.

Forty-six per cent of the funds expended on R & D had been specifically ear-marked for that purpose by the donors. The balance came from general university funds.

Approximately 80 per cent of the R & D expenditure was for basic research whilst almost all of the balance was devoted to applied research. As between the natural and social sciences, work in the former predominated and accounted for about 80 per cent of total expenditure.

While advancement of science was the primary objective of R & D performed by the universities in 1969, about 60 per cent of expenditure was for work having broad secondary objectives such as health, economic services and agriculture.

Research organisations associated with tertiary education institutions

Several of the universities and colleges of advanced education have established independent companies, operating on a commercial basis, to promote and manage research and consultancy services to industry, commerce, government and the general community. Examples are: Unisearch Ltd of the University of New South Wales, which is the largest of these organisations, with annual income at present of about \$500,000; Technisearch Ltd of the Royal Melbourne Institute of Technology; Techsearch Inc. of the South Australian Institute of Technology.

These organisations play an important role in promoting communication between the higher education and other sectors. They undertake investigational and research projects, mainly in the fields of engineering and science. However activities in other fields, such as management, marketing, and the social sciences are increasing. Testing work, performed generally by full-time employees, is undertaken in some instances. Results of work are confidential to the client and are not published unless authorised by that client.

Social science research

Research in the social sciences is undertaken primarily in universities and agencies of the Australian and State governments. Financial support for research in non-government bodies, especially universities, is provided by government. This support comes both from general funds provided to the universities and also from specific granting bodies such as the Australian Research Grants Committee and the Australian Advisory Committee on Research and Development in Education.

In 1968-69, expenditure on social science research amounted to approximately \$28 million, or some 11 per cent of gross national expenditure on R & D. Of this amount, \$13 million was for work performed by the universities, \$11.5 million for work performed by the Australian Government, and \$3 million for work performed by State governments.

The bulk of social science research carried out within Australian Government agencies is performed as part of the general activities of departments such as Aboriginal Affairs, Education, Labor and Immigration, Manufacturing Industry, Social Security and Treasury. However, several agencies have been established specifically to undertake research. These include the Australian Institute of Aboriginal Studies, the Australian Institute of Criminology, the Bureau of Agricultural Economics and the Bureau of Transport Economics. These agencies undertake studies in such fields as:

- economic research;
- educational research;
- statistical and social analysis of health and social security schemes;
- personnel management and industrial psychology, including enquiries into physical working conditions, industrial safety and the effects of technological change on employment;
- research directed at the development of standards for residential accommodation;
- research directed at the development of a system of social indicators to measure community progress in terms other than economic growth, and to determine the processes by which social goals are realised.

Other Australian Government bodies such as the Australian Post Office (APO) undertake research in the social sciences as well as in the natural sciences. For example, the APO conducts research into various aspects of management matters such as industrial psychology as well as into techniques of resource allocation and forecasting.

In 1973 a Social Welfare Commission was established by the Australian Government to enquire into, and make recommendations on, the development of social welfare systems in Australia. A recommendation of this Commission has resulted in a program for the promotion of Social Policy Planning Units. As part of this program, grants are being made to the State governments to establish or develop Social Policy Planning Units within departments responsible for social welfare.

Agencies of the various State governments undertake research relevant to their own activities and programs. Examples of these programs are:

- in the field of health services—studies of social determinants of morbidity, of patterns of utilisation of health services, and of the management of such services;
- in the field of youth and community services—studies of the ecology of urban delinquency, of efficiency of the system of prisoner parole, and of causes of intellectual handicap in children;
- in the field of crime research—the accumulation and interpretation of crime statistics.

A major research program into the causes of family disruption and breakdown in Australia is being supported jointly by the Australian and State governments.

Exchange of ideas and information on the social sciences is promoted through a number of professional and learned bodies, of which the Australian and New Zealand Association for the Advancement of Science (ANZAAS) and the Academy of the Social Sciences in Australia are the most broadly based. In addition to encouraging the advancement of the social sciences, the Academy sponsors and organises research, subsidises publications and acts as a consultant and advisor on the social sciences.

Non-government bodies which undertake or promote research in specific fields of the social sciences include the Australian Institute of International Affairs, the Australian Institute of Urban Studies, the Australian Institute of Political Science.

International activities

International organisations

Australia participates in the activities of both governmental and non-governmental international scientific organisations. Interaction with the former group of bodies is arranged through Australian Government agencies, but participation in the activities of bodies such as the FAO, IAEA, UNESCO, WHO, WMO is not restricted to governmental scientists. To facilitate scientific liaison and representation some Australian Government agencies have scientific and technological representation at overseas posts (e.g. Japan, United Kingdom, United States of America, IAEA, OECD). Australia also plays an active role in regional bodies such as ECAFE, the Pacific Science Congress, and the Association for Science Co-operation in Asia (ASCA), and has provided technical assistance to countries in the region under both multilateral and bilateral arrangements.

In particular, Australia is co-operating with the endeavours of the Committee for Scientific and Technological Policy of the OECD in its programs on:

- Automated information processing and communication systems,
- Assessment of the social consequence of new and existing technologies,
- International co-operation in scientific research and development,
- Measurement of resources (financial and manpower) devoted by OECD member countries to scientific research and development,
- Research and development in the field of energy resources.

Participation in international non-governmental scientific bodies is arranged through learned and professional bodies. For example, the Australian Academy of Science provides representation to the International Council of Scientific Unions (ICSU) and a number of its affiliated bodies.

Studentships and Fellowships

Australia has assisted other countries, principally in the Asian and Pacific regions, by training their nationals. Large numbers of such students, mainly seeking first qualifications at tertiary level, have been accommodated under schemes such as the Colombo Plan. There are also arrangements under which established scientists from overseas are assisted to undertake study and research in Australia, but there are more Australians going abroad temporarily than there are foreigners entering temporarily for these purposes.

Registry of Scientific and Technical Services

In response to a request from seven Asian countries and New Zealand, Australia has established a Registry of Scientific and Technical Services in Canberra. The aim of the Registry is to collect and publish information about current research projects conducted by scientific and technical groups within the Asian and Pacific Region. The fields covered are directly related to economic development. A number of directories have been published reporting the work of over 2,600 groups in the Region. These publications provide an information tool to enable co-operative arrangements to be developed between scientific and technical groups with similar interests.

Bilateral Arrangements

Various bilateral arrangements at both government and non-government levels have contributed to the development and maintenance of co-operation in science and technology between Australian institutions and those in other countries. For example, an agreement of this kind was reached with the United States in 1968 and more recently the details of an agreement between Australia and the USSR have been finalised.

Under the auspices of the United States/Australia agreement 11 visits, 9 seminars, and 3 joint research projects have been arranged during 1974. These include the Biological Membranes seminar held at the East-West Center of the University of Hawaii, a seminar-workshop on solar energy at the University of Sydney, and a lunar laser ranging project which involves collaboration between NASA in the United States and the Division of National Mapping, of the Australian Department of Minerals and Energy.

Astronomy

In the field of optical astronomy, Australia and Britain are co-operating in the Anglo-Australian telescope project which involves the construction and operation in Australia of a 3.9 metre reflecting telescope at Siding Springs, New South Wales. The telescope, among the largest in the southern hemisphere, was officially opened in October 1974.

A Director has been appointed and appointment of other scientific and technical staff is expected to be completed during 1975. Observing time on the telescope is to be shared equally between Australia and the United Kingdom. When full scale observations begin in 1975, it is expected that much valuable work will be done to complement the significant progress made by radio-astronomers in Australia.

Space

The European Launcher Development Organisation (ELDO) made use of rocket launching facilities at Woomera, South Australia, in the course of its program to develop a satellite launch vehicle. Also in the field of civil space research, 5 tracking stations were built in Australia for the United States National Aeronautics and Space Administration (NASA) and are operated by Australia under an agreement between NASA and the Australian Government's former Department of Supply.*

* The Department of Manufacturing Industry assumed temporary responsibility for administering this agreement, following abolition of the Department of Supply in June 1974; in January 1975, responsibility will pass to the Department of Science.

Defence

In the field of defence science, Australia collaborates with other countries through a variety of arrangements at inter-governmental level. Examples are The Joint United Kingdom–Australia Long Range Weapons Project, and the Technical Co-operation Program involving the United States, and the United Kingdom, Canada, Australia and New Zealand. Further information is given in Chapter 4, Defence.

Other

At the non-governmental level, formal arrangements for scientific co-operation with counterpart institutions in other countries have been concluded by a number of Australian bodies. For example, an arrangement covering co-operation in astronomy exists between the University of Sydney and Cornell University (USA), while over a broader area The Australian National University has an arrangement with the USSR which includes exchanges in the scientific fields.

CHAPTER 29

CULTURAL ACTIVITIES, RECREATION AND TRAVEL

This chapter is divided into three major sections. The culture activities section consists mainly of a description of cultural organisations and some statistical information concerning financial assistance for the arts.

The recreation section comprises descriptive information provided by the Department of Tourism and Recreation on five major aspects of leisure: community recreation, fitness, sports development, youth affairs, and tourism.

The travel section consists mainly of statistics concerning overseas visitors to Australia and Australian residents departing overseas. There is also a short note about travel within Australia.

CULTURAL ACTIVITIES

Cultural organisations and financial assistance for the arts

In Australia the arts are given financial support on several levels. The main sources of subsidy are the Australian and State governments, but support has been increasing recently from local governments and universities. Support from private sources is still limited, but inclusion of the-arts in the benefits of private foundations, and sponsoring of awards and scholarships is gradually increasing. While support is received indirectly through government educational, cultural and other public service instrumentalities, three organisations have played a significant role in serving and financing the arts.

The Arts Council of Australia

The Arts Council of Australia was founded shortly after World War II. (It should not be confused with the Australian Council for the Arts mentioned later in this chapter which is a national government agency for assistance to the arts).

The Arts Council is an independent, non-government association consisting of a federation of State "Divisions"; each Division is based on the local branches organised in country centres. With the exception of Western Australia, the Arts Council has a Division in each State and Territory and throughout Australia there are more than 160 branches. In the case of Western Australia the Arts Council co-operates closely with the recently formed Western Australian Arts Council, which is a statutory authority established by the Western Australian Government to fund and service the arts.

The Arts Council has two main objectives: to arrange tours by professional arts attractions (including performances for school audiences) to country areas; and the establishment of weekend or vacation "schools". Activities include arranging poetry readings; the exhibition of paintings, sculpture, crafts and prints; and the presentation of concerts, drama, opera, dance, puppetry and music for primary and secondary schools. A recent development involves week-long holiday schools for young people which cover many forms of art and craft.

In 1972, the Commonwealth Government grant to the Arts Council was \$175,000 and total State grants amounted to \$193,000. In addition to these government grants the Council receives donations from individuals and businesses and its members pay subscriptions to their branches.

Australian Elizabethan Theatre Trust

The Australian Elizabethan Theatre Trust, which was established in the mid 1950s, was originally formed to present drama, opera, ballet and puppetry throughout Australia. Full autonomy has now been accorded to most of the performing companies established by the Trust in its earlier years and only the Marionette Theatre of Australia continues to operate under Trust administration. The Trust's major functions now are to provide financial guarantees to the independent performing companies and tours; to maintain two orchestras (based in Sydney and Melbourne) to service the

requirements of the Australian Opera and the Australian Ballet; to administer subscription booking systems on which both of these companies now operate; to act as entrepreneur in the touring of theatre features from overseas and Australian sources; and to provide general services in communication for theatre organisations.

The Trust receives annual grants from the Federal Government through the Australian Council for the Arts and from State and local governments. Its revenue is supplemented by subscriptions from members, by donations from businesses and private individuals and by its own entrepreneurial activities.

The Australian Council for the Arts—Australia Council

In 1968, a new Federal body was created: The Australian Council for the Arts. It operated as an advisory agency to the Government and was responsible directly to the Prime Minister. It was originally intended to service only the performing arts, supplementing existing government bodies such as the Commonwealth Art Advisory Board and the Commonwealth Literary Fund. In 1972 a new Council was established to bring all Australian Government support for the arts under unified administration.

In January 1973 the Prime Minister announced the Government's intention to legislate to establish the Australian Council for the Arts—to be called the Australia Council—as a statutory authority, an independent agency to carry out its policies in the arts.

Within the Council framework there are seven specialist Boards: Theatre (including Drama, Dance and Puppetry); Visual Arts; Music (including Opera); Literature; Crafts; Film and Television; and Aboriginal Arts. The Boards each consist of a maximum of eleven members, except for the Aboriginal Arts Board which has a maximum of fifteen. The Chairman of each Board is also a member of the Council. The Boards are the main source of policy initiatives in their field, having authority to deal with their own budget allocation and, in consultation with the Council, to appoint specialist staff and committees to implement their policies.

The Council itself consists of not less than 18 and not more than 24 members (including the Board Chairmen) (*see above*) appointed by the Prime Minister. It is responsible to the Government for policy development in matters of common concern to all Boards, and for a program of overseas exchanges. It advises the Government on new initiatives, on overall budgetary requirements and on matters referred to it by the Prime Minister or other Ministers. It acts as a forum for discussion and co-ordinated planning between various boards.

Federal Government grants to the Council and other funding agencies increased steadily through the first years. A marked increase occurred in 1973 and 1974.

FEDERAL GOVERNMENT GRANTS TO THE AUSTRALIAN COUNCIL FOR THE ARTS (\$ million)

Year	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Grant ..	1.66	2.85	3.80	4.50	6.70	14.00	20.00

In addition to the 1973 budget allocation of \$14 million a sum of \$1,019,000 was granted to cover administrative expenses. The distribution of funds between the various Boards by the Council is made on the basis of budgets prepared by the Boards in relation to the calls for funds and services anticipated, by means of consultation with the Boards to determine their individual needs.

DISTRIBUTION OF FUNDS TO BOARDS OF THE AUSTRALIAN COUNCIL FOR THE ARTS, 1973

	\$
The Council Grant	3,055,000
Theatre Board	3,090,000
Visual Arts Board	778,000
Music Board	3,068,000
Literature Board	1,080,000
Crafts Board	717,000
Film and Television Board	1,681,000
Aboriginal Arts Board	531,000

The Council grant includes 10 per cent of each Board allocation held on the Board's behalf in a central contingency fund which can be readily reallocated so as to provide flexibility between programs, some of which might develop more or less rapidly than planned. Council also has financial responsibility for programs in which Boards have a common interest.

More than 4,000 requests for assistance were received during 1973, of which 1,599 were approved wholly or in part.

TOTAL GRANTS APPROVED BY THE AUSTRALIAN COUNCIL FOR THE ARTS, 1973

	<i>National and overseas(a)</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Total</i>
NUMBER OF GRANTS										
Aboriginal Arts	6	12	7	5	2	9	..	16	..	57
Crafts	28	60	34	8	25	14	14	..	3	186
Film and Television	24	98	72	7	27	9	1	1	3	242
Literature	65	131	94	19	25	22	11	1	18	386
Music	28	78	43	17	20	14	17	4	12	233
Theatre	47	52	38	17	16	17	14	5	7	213
Visual Arts	4	35	47	10	11	16	3	..	8	134
Council Program	77	25	21	4	4	9	2	3	3	148
Total	279	491	356	87	130	110	62	30	54	1,599

VALUE OF GRANTS (\$)

Aboriginal Arts	17,124	44,795	31,923	11,928	6,263	35,881	..	144,307	..	292,221
Crafts	70,233	121,734	65,720	12,734	53,852	44,344	26,216	..	8,900	403,733
Film and Television	294,904	325,299	196,534	4,753	43,896	100,224	1,000	1,586	1,560	969,756
Literature	287,420	738,335	489,081	62,050	52,425	126,770	41,300	700	66,980	1,865,061
Music	2,121,400	225,627	140,455	72,925	76,993	60,925	42,214	3,779	37,695	2,782,013
Theatre	835,428	453,456	400,197	119,228	160,074	165,307	130,561	6,050	33,910	2,304,211
Visual Arts	12,500	134,481	202,066	38,650	39,500	49,840	11,800	..	10,987	499,824
Council Program	1,058,446	98,828	81,111	12,700	27,625	44,960	7,000	15,500	6,500	1,352,670
Total	4,697,455	2,142,555	1,607,087	334,968	460,628	628,251	260,091	171,922	166,532	10,469,489

(a) Includes grants to national companies and organisations such as the Australian Opera and the Australian Ballet, and grants to entrepreneurial organisations (e.g. the Australian Elizabethan Theatre Trust), funds for international cultural exchanges and assistance to Australian artists overseas.

The Advisory Committee of the Commonwealth Literary Fund, the Commonwealth Art Advisory Board, and the Committee for Commonwealth Assistance to Australian Composers operated for many years to assist the arts. The functions of these earlier bodies have been incorporated into the responsibilities of the appropriate Boards and the terms of reference greatly extended.

Australian National Trusts

The Australian National Trusts were founded to further the preservation of lands, places, buildings, works, and articles which are of national importance because of educational, aesthetic, historic, architectural, artistic, scientific, cultural, or other special interest.

The first Australian National Trust, the National Trust of Australia (New South Wales), was formed in 1945. Since then National Trusts have been formed in each of the other States. The Trusts in New South Wales, Queensland, South Australia, and Western Australia have statutory authority, and those in Victoria and Tasmania are incorporated under the Companies Act of their respective States. The Australian Council of National Trusts was incorporated in 1965 to co-ordinate the activities of the State National Trusts and represent them at federal and international level.

Membership of the National Trusts is open to all individuals and organisations. Total membership throughout Australia is approximately 41,000. The Trusts are financed by members' subscriptions and donations from individuals and commercial and industrial organisations, the proceeds of charges for entry to Trust properties and the fund-raising activities of members, including inspections of historic houses. In all States the National Trusts receive some financial support from State governments. The Australian Government supports the Council through an annual grant of \$5,000 for administrative purposes, and in 1972 a further annual grant of \$50,000 was approved, this grant being intended for capital expenditure on the basis of national priorities. The Australian Government also provides support through taxation concessions.

The number of properties owned or controlled by the Trusts exceeds sixty. These include houses natural reserves, a powder magazine, a police station, a gaol, two paddle steamers and a hulk, a joss house, and a garden. The Trusts have also established a register of buildings (totalling several thousand) which they consider should be preserved in the national interest because of their historical and/or architectural significance.

In May 1973 a Committee of Inquiry was appointed to define 'The National Estate' and to offer suggestions on action in its area. The Committee recommended the establishment of a permanent commission on the national estate to be called the Australian Heritage Commission. Meanwhile, an Interim Committee consisting of both departmental and private members, was established and first met in September 1974. The Interim Committee advises the Ministers for Urban and Regional Development and for Environment and Conservation on matters pertaining to the protection, conservation and presentation of the National Estate. It is also responsible for the appropriation of funds to the Department of Urban and Regional Development for the administration of its National Estate program.

Historic Memorials Committee

The Historic Memorials Committee was established in 1911 for the purpose of securing portraits of distinguished Australians who had taken an active part in Federation. Later the Committee decided to obtain portraits of all Governors-General, Prime Ministers, Presidents of the Senate, Speakers of the House of Representatives, Chief Justices of Australia, and other notable Australians. In addition the Committee has commissioned paintings recording special events connected with the Australian Parliament.

The Committee comprises the Prime Minister (Chairman), the President of the Senate, the Speaker of the House of Representatives, the Vice-President of the Executive Council, the Leader of the Opposition in the House of Representatives, and the Leader of the Opposition in the Senate. The Committee is advised on commissioning of portraits by the Visual Arts Board of the Australian Council for the Arts.

The performing arts

Festivals

Festivals of the arts are playing an increasing role in the nation's cultural life. The two biggest are Adelaide's biennial and Perth's annual festivals, both of which last several weeks and present overseas artists as well as leading Australian companies. Tasmania, Queensland and the Australian Capital Territory are in the process of establishing regular arts festivals and Victoria's large popular festival 'Moomba' has a substantial arts program.

Other popular festivals are introducing arts events and many small country centres now have arts festivals which attract performers and artists from a wide area. Purely amateur and competitive performances are being infused with increased professionalism. Seminars, arts workshops and community participation programs are increasingly popular.

Theatre

Commercial theatre organisations play an important role in the theatrical life of the country, providing musicals and plays, and bringing to Australia overseas companies such as the Leningrad Kirov Company, the Royal Shakespeare Company and the Moscow Circus. Commercial theatre organisations and entrepreneurs frequently collaborate with government-subsidised organisations in arranging joint festival attractions and visits by internationally acclaimed artists and companies. Established non-commercial professional companies in all States are subsidised.

The Australian Council for the Arts attaches great importance to professional training in the arts. The Theatre Board has awarded grants of \$210,000 to the National School of Dramatic Art and \$100,000 to the Australian Ballet School. Travel grants and study grants are made available to those seeking advanced training in professional, artistic, administrative and technical aspects of the performing arts.

International exchanges in the arts are seen to be of special importance and eminent overseas producers, performers and choreographers have visited Australia for short periods to work with Australian theatre companies.

There is a strong demand both for new Australian works and for Australian content in television programming. This growing activity in the arts is giving Australian artists new creative opportunities and a larger measure of public recognition and acceptance.

Opera

The Australian Opera was created in 1956 under the auspices of the Australian Elizabethan Theatre Trust to form the basis of a national touring opera company. It was known as the Elizabethan Trust Opera Company until the end of 1969 when the Australian Opera formed its own Board of Directors. In its early years the company retained only a core of full-time administrative officers and engaged its singers for each annual season. These seasons involved the presentation of three operas in most years and a tour circuit covering each State. In September 1973 the Australian Opera opened its first season in the new Sydney Opera House. It currently employs a chorus of forty-two singers and twenty-six resident soloists on a permanent basis.

The 1973-74 budget for the Australian Opera is \$3,800,000; this does not include the cost of the orchestras (which are still financed through the Elizabethan Theatre Trust). Of this total, more than half (\$1,941,250) comes from State and Federal subsidies or from donations. The Federal grant was \$800,000. During 1973, for the first time, substantial aid was raised from private industry; this totalled almost \$500,000. The remaining \$1,858,750 is met from box office receipts, in Sydney and on tour.

In addition to the Australian Opera, small professional opera companies have been established in each capital city. These companies tour extensively within their resident State and performances in schools are an important part of their work.

Ballet

The Australian Ballet Foundation was formed in 1961 by the Australian Elizabethan Theatre Trust and J. C. Williamson Theatres Ltd to establish a national ballet company, which gave its first performance on 2 November 1962.

The establishment of a permanent Australian company, the appearance of the world's leading artists with the company, the commissioning of works by Australian composers, choreographers and designers and presentation of the company overseas were achieved within the first three years.

The Australian Ballet receives subsidies from the Federal Government (through the Australian Council for the Arts), the six State Governments and the major municipal bodies (through the Australian Elizabethan Theatre Trust). It also receives support from private corporations and individuals. The Australian Ballet has its headquarters and studios in Melbourne.

The 1974 budget for the Australian Ballet is \$1,800,000; of this some 30 per cent (\$550,000) is met by Australian Government subsidy, and 10 per cent by grants from State governments. This figure does not include the services of the Elizabethan Trust Orchestra which is maintained by the Trust to service the requirements of the Australian Ballet. Much of the remainder is met from box office receipts.

The Australian Ballet School is associated with the Australian Ballet, and shares its Melbourne premises.

Music

The Music Board of the Australian Council for the Arts is responsible for administering Australian Government assistance to music and opera. Assistance is provided for a wide range of music activities—one of the most important is the development of Australian music and the growing interest in the work of Australian composers.

The development of music in Australia has been influenced by difficulties imposed by the size of the country and its small population. Australia has eight fully professional symphony orchestras. Six were established by the Australian Broadcasting Commission and two by the Elizabethan Theatre Trust. There is one in each State capital and two others permanently attached to the national ballet and opera companies. The A.B.C. orchestras tour in their respective States. The Sydney and Melbourne Symphony Orchestras have both toured abroad with acclaim.

Orchestral Music

The Australian Broadcasting Commission controls six symphony orchestras and a national training orchestra and organises about 750 concerts each year. This makes it one of the biggest musical entrepreneurs in the world. Since the inception of television, more than 50 operas have been produced in A.B.C. studios, and over 1,400 resident performers have been used. There is a constant flow of artists between Australia and other countries and the A.B.C. has played a significant part in encouraging this movement. The Commission has also been responsible for bringing to Australia internationally renowned orchestras. For further details of the Australian Broadcasting Commission see pages 407-9.

Chamber Music

Musica Viva Australia organises tours in Australia by overseas chamber music ensembles of international repute. It is a non-profit making voluntary organisation with over 3,500 members in all States and has a small paid administrative staff. The society also assists Australian chamber music groups to tour overseas and it has been responsible for helping many Australian groups reach international standards.

In addition to Federal Government assistance through the Australian Council for the Arts, Musica Viva Australia has received aid from the State Governments of New South Wales and Victoria. It has also received some assistance from private and corporate donations.

Film

The Film and Television Board

The Film and Television Board of the Australian Council for the Arts is the major policy initiator in the field of Australian film. Three funds have been established by the Board to administer its assistance program. These are the Experimental Film and Television Fund, The Film and Television Development Fund and the General Production Fund. The Experimental Film and Television Fund is designed to foster and encourage film and television experiment in form, content or technique and to discover and develop new creative talent by giving opportunity to promising workers to undertake work of quality. The Film and Television Development Fund assists with the production costs of film and television projects of quality and special interest which are directed at the general public but initially have difficulty in attracting backing. The Board assists film festivals and cultural organisations devoted to film such as the Australian Film Institute, the National Film Theatre, the Archival Library and the Australian Council of Children's Film and Television.

Australian Film Development Corporation

The *Australian Film Development Corporation Act 1970* provided for the establishment of an Australian Film Development Corporation to encourage the making of Australian cinematographic and television films and to encourage the distribution of such films within and outside Australia.

Until a few years ago most of the feature films produced in Australia were financed and controlled by American, British and Japanese interests, sometimes in combination with local producers. However, since the establishment of this Corporation, a growing number of wholly Australian films has been produced and released in Australia and overseas. Some of these have met with notable commercial success.

Australian National Film Board

The Australian National Film Board advises the Minister for the Media on matters concerned with the production, acquisition and distribution of films required by Australian Government departments. Films for use within Australia deal with important matters of national interest and welfare, such as school and adult education, rehabilitation, social development, international understanding, trade and tourist expansion, and immigration. Those for dissemination abroad are directed towards expanding trade and commerce with other countries, encouraging tourist traffic with Australia, encouraging immigration, improving Australia's relations with other countries and, where necessary, explaining Australia's national policies.

Film Australia

The Film Branch (formerly the Commonwealth Film Unit) of the Department of the Media is the official film production and distribution agency for Australian Government departments and instrumentalities. It is referred to as Film Australia. It distributes its theatrical and television productions in Australia and overseas through its representatives at Australian official posts. Non-theatrical distribution in Australia is arranged in co-operation with State film distribution agencies, and through the National Library of Australia. Between sixty and seventy films are produced annually by Film Australia with translations into as many as twenty-six languages. These films deal with matters of national interest to Australia and are designed to illustrate or interpret aspects of Australia or the life and activities of the Australian people. In 1973-74 Film Australia produced 68 films comprising 129 reels (each of 10 minutes duration) and translated 124 films consisting of 265 reels into other languages.

The Australian Film Commission

In December 1973, Federal Cabinet approved the establishment of an Australian Film Commission as a statutory body to succeed the Australian Film Development Corporation and incorporate Film Australia. As well, it is intended that the Commission will provide expanded facilities to assist

commercial Australian film producers with funds and services for the production, distribution and exhibition of Australian films within Australia and abroad. Pending the establishment of the Commission by Statute, the Minister of the Media has appointed an Interim Board of eleven members to advise him on policy matters associated with the formation of the Commission and to carry out some of its preliminary tasks.

Australian Film and Television School

The Film and Television School was established by Statute in 1973 to stimulate film and television as an industry, in education and as an art, by training people and initiating research. It is an independent statutory body and is directly responsible to the Prime Minister.

The principal functions of the School are:

The Full-time Program—As from 1975, it will conduct a three year full-time course for professional training as film and television directors, producers, writers, production managers and cinematographers.

The Open Program—Training courses of short duration, such as refresher courses, seminars and workshops for industry groups, educationalists, film makers and video specialists, are conducted on an Australia-wide basis. The School also co-ordinates the granting of financial assistance to organisations and institutions concerned with film and television training and education in Australia. As well, the Open Program administers grants-in-aid to people who may benefit through study, training or experience within Australia or overseas.

Film censorship

The Federal Government's powers over censorship of films under the Customs Act extend only to imported films and imported advertising matter. Under that Act the Customs (Cinematograph Films) Regulations provide for the appointment of a Film Censorship Board whose function is to ensure that films and related advertising material coming within certain defined categories are not admitted into Australia. The Film Censorship Board comprises nine persons and there are six members of a Cinematograph Films Board of Review. Importers have a right of appeal to the Minister.

The Australian censorship function is now the responsibility of the Attorney-General's Department and all States have agreed that the Federal Government should be the censorship authority for the purpose of the State Acts. They have agreed to vest in the two Boards the power to register and classify films.

Thirty-five mm. films. In 1973, 1,334 films comprising approximately 2,130,300 metres were examined. Thirteen feature films were rejected and cuts were made from 50. There were 15 appeals, 14 against rejection, 1 against proposed eliminations and none against classification. Of the 678 feature films, 157 were awarded the "R" (Restricted) Certificate, 168 were recommended for showing to mature audiences ("M"), 145 were not recommended for children ("NRC"), 129 were classified as suitable for children ("G") and 66 were classified for use under festival conditions only. While the "M", "NRC" and "G" classifications are advisory, children between the ages of 6 and 18 (2 and 18 in South Australia) are excluded by law from seeing "R" films.

In addition to these imported films there were 43 thirty-five mm. films amounting to 36,620 metres produced in Australia.

Sixteen mm. films. Excluding those imported for television use, 4,418 films of approximately 1,356,200 metres were examined.

Eight and 9.5 mm. films. There were 1,617 films (approximately 86,700 metres) examined.

Television films. In 1973, 7,573 films for use on television were examined. There were 1,252 video tapes of a total running time of 661 hours. There were 6,321 (2,561,900 metres) of sixteen mm. films imported.

The principal suppliers were United States of America (4,388 films) and United Kingdom (1,141 films). Of the total imports 229 films were cut and 30 were classified as unsuitable for televising.

Art

The Visual Arts Board

The Visual Arts Board of the Australian Council for the Arts, which is the Australian Government's advisor on matters pertaining to the visual arts, is the body responsible for the promotion of excellence in the visual and plastic arts throughout Australia.

In co-operation with the Department of Foreign Affairs, the Board arranges exhibitions of Australian art to tour overseas, and also arranges Australian participation at an official level in international art competitions. Exhibitions of important international art tour Australia under the auspices of the State Gallery Directors' Conference, often in association with the Visual Arts Board. *Art prizes.* A number of valuable art awards are offered regularly, including the Archibald Prize for portraiture, the Wynne, Sulman, Blake and Rubenstein Prizes and the annual Britannica awards. Business houses also award prizes and sponsor travelling exhibitions.

The Australian National Gallery

The foundation stone for the Australian National Gallery on the shores of Lake Burley Griffin in Canberra, was laid by the Prime Minister on 7 November 1973. The Gallery building is due for completion in 1978. It is 23,000 square metres in area which includes fourteen exhibition galleries taking up 30 per cent of the floor space. The remainder will accommodate theatres and a theatrette, an education section, a library, a conservation laboratory, administrative and workshop areas and stores.

The collection will include Australian fine and minor works of all periods, international modern fine and minor arts, graphic arts, ethnic art of Black Africa and the Pacific Basin, Asia and the Far Eastern Art, films, photography, theatre and fashion arts and a collection of masterpieces or outstanding works of art as they are available.

The collection of art works for the Gallery has been proceeding since the founding of Australia's National Capital, but it has been greatly stimulated by special budget allocations of \$1 million in 1972 and \$4 million in 1973 (which is planned as an annually recurring grant). Since Federation more than 2,000 Australian works have been acquired. 1971-72 saw the acquisition of the first group of "international" works of art.

The Australian National Gallery Interim Council was established in September 1974 with the authority to purchase works of art on its own initiative within the budgetary limit imposed by Parliament.

Other galleries

Other important art collections are housed in the Australian War Memorial and the public galleries in all State capitals and many of the larger country centres. As well as these government-owned galleries there are many municipal and private trust institutions, and university and private collections. Some descriptive detail of the major art galleries in Australia is given on pages 547-9 of Year Book No. 55 and in the State Year Books.

Museums

In each State there is at least one major State-run museum. There are also many smaller museums owned by municipal councils, district and historical societies, private trusts and private individuals. The two major national museums in the Australian Capital Territory are the Australian War Memorial and the Australian Institute of Anatomy.

Some descriptive detail concerning the more important institutions is given on pages 547-9 of Year Book No. 55 and in the State Year Books.

Literature

The Literature Board

From the founding of the Australian Council for the Arts, an effort was made through the Literature Board to substantially increase financial assistance to the writing profession. In 1972-73, this amounted to \$300,000. Long-term support for creative writers is given through three-year scholarships and a guaranteed income scheme.

Other types of grants administered by the Literature Board include assistance to publishers and to literary magazines, substantial aid to various Book Councils, and to seminars, guest speakers, and conferences such as the Australian National Playwrights' Conference. A Public Lending Right Scheme has been introduced to compensate writers for public library circulation of their works.

National Literature Board of Review

The National Literature Board of Review was established in 1968, following Commonwealth-State agreement, to achieve uniformity in the administration of laws relating to blasphemous, indecent or obscene publications of *prima facie* literary, artistic or scientific merit. In terms of the agreement

the Board is established under the Customs (National Literature Board of Review) Regulations. Appropriate Ministers of any State may, under the Agreement, refer locally published or distributed works to the Board for advice. Subject to retention of final responsibility by each Minister it is the intention of the governments concerned not to act against a publication of merit which the Board advises is suitable for distribution in Australia.

Book publishing

Prior to 1972, statistics of book publishing in Australia and the External Territories were prepared and published by the Australian Bureau of Statistics from data supplied by the National Library of Australia. For details see Year Book No. 58, pages 680-1 and earlier issues.

From 1972 the statistics have been compiled and published by the National Library but they are not comparable with those statistics published by the Bureau for earlier years.

The table below shows the number of books and pamphlets (including leaflets), published in Australia in 1972, 1973 and 1974, and received by the National Library to December 1974, classified by State or Territory of publication and by class of publisher.

AUSTRALIAN BOOKS AND PAMPHLETS PUBLISHED BY YEAR OF PUBLICATION

(Source: *Australian National Bibliography, National Library of Australia*)

	Number of titles(a)		
	1972	1973	1974
State or Territory—			
New South Wales	1,708	1,498	586
Victoria	1,295	1,057	506
Queensland	350	293	119
South Australia	343	443	180
Western Australia	275	298	48
Tasmania	69	106	32
Northern Territory	14	43	3
Australian Capital Territory	683	902	366
Papua New Guinea	181	206	12
<i>Total</i>	<i>4,918</i>	<i>4,846</i>	<i>1,852</i>
Publisher—			
Commercial	1,943	1,725	952
Australian Government	689	866	296
State Government	776	682	245
Local government	50	34	5
Society, institution, company, private	1,460	1,539	354
<i>Total</i>	<i>4,918</i>	<i>4,846</i>	<i>1,852</i>

(a) Received by the National Library to December 1974.

Libraries

An account of the establishment, growth and functions of the National, Commonwealth, and State Libraries is given on pages 533-538 of Year Book No. 55.

Australian Government libraries

National Library of Australia, Canberra. The National Library maintains and develops a national collection of library material, representative of all the major countries of the world, and it is also responsible for assembling a comprehensive collection of library material relating to Australia and the Australian people. In fulfilment of the latter statutory function it seeks to preserve books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving picture films, music scores and sound recordings. Under the deposit provisions of the *Copyright Act 1968*, a copy of all library material published in Australia is delivered to the National Library. The Library has also been enriched by the acquisition of such notable collections as the Petherick collection of

16,500 items in 1911, the Cook manuscripts in 1923, the Cumpston collection on Public Health in Australia in 1936, the Mathews ornithological collection in 1940, the Rex Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts, and printed material in 1959, and the Ferguson collection of Australiana, acquired in 1970. The Library maintains a permanent exhibition of paintings, prints, and other historical material selected from its various collections.

In association with the Library of New South Wales, the Library is engaged on a microfilming project to copy original records relating to Australia which are held in Great Britain and other overseas countries. *Australian National Bibliography*, which appears weekly, monthly, four monthly and annually, lists books published in Australia and books dealing wholly or substantially with Australian subjects or written by Australian authors. It is now computer produced and the records are available in machine-readable form. Catalogue cards for Australian books listed in the bibliography are also made available. The publications of the Australian governments, included in *Australian National Bibliography*, are also listed quarterly and annually in *Australian Government Publications*. A select list of authoritative Australian books of reference and research value is published annually in *Australian Books*. A similar list of serials is published in successive editions under the title *Current Australian Serials*. The Library's principal activity in subject bibliography is its *Australian Public Affairs Information Service*. A listing of maps and atlases, included in *Australian National Bibliography* from 1961 to 1967, has, since that time, been recorded in a separate quarterly publication entitled *Australian Maps*.

Co-operative bibliographical activity includes recording, in a series of union catalogues, the holdings of the major Australian libraries. The national union catalogue of monographs, maintained in card form, was commenced in 1960 and since then all the larger, and an increasing number of the smaller, libraries have reported their monograph accessions to the National Library. The major published union catalogue is the continually updated *Serials in Australian Libraries, Social Sciences and Humanities*, which complements another catalogue, *Scientific Serials in Australian Libraries* published by the Commonwealth Scientific and Industrial Research Organization.

Under an agreement with the United States National Library of Medicine, the Library has, since 1969, operated a regional Medical Literature Analysis and Retrieval (MEDLARS) Centre. The Australian MEDLARS service contributes indexed entries to this system and on request provides computer-produced bibliographies of recent and current material to workers in various bio-medical fields. The service was expanded in 1973-74 by the addition of the BA Previews tape service produced by the Bio-Sciences Information Service (BIOSIS) in the United States to provide a current awareness service for biologists.

The National Library acts as a central library of documentary and educational films, its film lending collection containing approximately 17,000 films, together with a major historical collection of Australian film production.

The National Library's collections contain over 1,400,000 volumes, 25,000 paintings, pictures and prints, 140,000 photographs, 91,000 reels of microfilm, 509,200 microfiche, 228,950 microprints and microcards, 1,550 running metres of manuscripts, 5,300,000 metres of moving picture film, 60,000 motion picture stills, 283,172 maps, 500,000 aerial photographs, 17,887 music scores, 84,000 sound recordings and tapes, as well as 1,000 oral history tapes. It also has 3,100,000 data records used for producing published bibliographies and current awareness services in the bio-medical fields.

Patent Office Library. The Library of the Commonwealth Patent Office, Canberra, contains approximately 17,500 books and a wide variety of periodicals and other literature relating to pure and applied science, industrial technology and the industrial property (patent, trade mark and design) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are over 14,500,000. Indexes include a microfilm of a classified index to 3,000,000 U.S.A. patents and translations of abstracts of U.S.S.R. patents.

Commonwealth Scientific and Industrial Research Organization. The Central Library was brought into the newly-formed CSIRO Central Information, Library and Editorial Section at the end of 1973. Its holdings cover the pure and applied sciences. In addition to the Central Library located in East Melbourne, each of the Divisions has specialised collections. The Library maintains a union catalogue of the holdings of all CSIRO libraries, and maintains the constantly updated *Scientific Serials in Australian Libraries*. With the Information Service, it publishes the monthly *CSIRO Abstracts* and *Australian Science Index*, and directories such as *Australian Scientific Societies and Professional Associations* and *Scientific and Technical Research Centres in Australia*.

The Information Service provides a question-and-answer service and operates the CSIRO Selective Dissemination of Information (SDI) System.

The Australian War Memorial Library, Canberra. In the War Memorial library are housed the documentary and pictorial records of Australia's fighting services in wars in which they have participated. The printed records section contains over 70,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings, war posters, and postage stamps. The collection of official war photographs covering the 1914-18, 1939-45 and Korean wars numbers over 250,000, and a collection of official motion picture film depicts Australia at war. Adequate facilities exist for public research and requests for information are met where practicable.

The Australian Parliament Library. The library is organised to provide a specialised service to the Australian Parliament. The two main sections are the Legislative Research Service and the Legislative Reference Service. The Research Service comprises six groups staffed by specialists who prepare analyses and interpretations of specific issues with which the Parliament is or may be concerned. The Reference Service answers questions and provides information. The library collection is concentrated on topical material, supported by a wide collection of standard references; it totals 30,000 titles, including 8,500 serial titles. The library publishes the *Australian Parliamentary Handbook* which is a standard reference work, a series of periodical abstracting bulletins, occasional annotated reading lists and fortnightly accessions lists.

Other Australian Government libraries. Most Australian Government authorities have specialised collections in their own fields and in addition draw largely on the National Library.

Library services in the Territories. The Northern Territory Library Service maintains five centres in the Territory; at Darwin, Nightcliff, Alice Springs, Tennant Creek and Katherine. At 30 June 1972, stocks totalled 72,874 volumes.

The National Library, through its Extension Services Section, conducts the Canberra Public Library Service to residents of the Australian Capital Territory. At 30 June 1972, 379,192 volumes were held.

State libraries

Most municipal councils in the States have libraries funded largely by State governments. A detailed description of State libraries is given on pages 685-690 of Year Book No. 59 and in each State year book.

Children's libraries and school libraries

Children's libraries exist in all States, usually as branches or extensions of State or municipal libraries. Further details of children's libraries and school libraries are given on pages 689 and 690 of Year Book No. 59.

University and college libraries

Since 1957 when the Australian Government inaugurated a comprehensive program of university expansion, there has been notable development of university libraries, and similar development is now taking place in colleges of advanced education. Some current information on university libraries is given in the Bureau's annual publication *University Statistics—Part 2: Staff and Libraries* (13.8).

Archives

Australian Archives

An account of the development of the Commonwealth Archives Office, re-named Australian Archives from 7 March 1974, and a detailed description of its functions appear on pages 543-4 of Year Book No. 55. Australian Archives functions as a central agency for the control of records created by the Australian Government which are no longer required in the day-to-day business of government. At 30 June 1974 the total holdings of Australian Archives throughout Australia amounted to 195,000 shelf metres of records, including 74,000 metres of permanent material, such as files, manuscripts, registers, cards, books, maps, plans, models, paintings, films, photographs, microfilms, recordings and tapes. Australian Archives regulates access to all Australian Government records, whether in its custody or held by departments, in accordance with the Government's access rules.

In 1971, the 50-year closed access period was reduced to 30 years. In January 1972 it was announced that the 30-year rule would apply to Cabinet papers also, with accelerated release of both Cabinet and departmental records created prior to 1 January 1946 to allow study of the Second World War as a whole.

Australian Archives provides an advisory service to inquirers, both official and public. During 1973-74, 700 official reference inquiries were received and 344,000 items lent to government departments. Some 600 research inquiries were also received. Extension services, promoting the use of archives in the field of education, and displaying material of interest for public exhibition, are envisaged. These facilities will be greatly improved when the National Archives building for the National Capital is erected.

The headquarters of Australian Archives is in Canberra, and there are branches in Sydney, Melbourne, Brisbane, Adelaide, Perth, Darwin, Hobart and Townsville. In 1973-74 record surveys were conducted in the Northern Territory and Papua New Guinea. Australian Archives maintains liaison with similar organisations in overseas countries and is a national member of the International Council on Archives, established under the auspices of UNESCO.

State government archives

State government archives, dating from the beginning of European settlement in 1788, are held, in the case of New South Wales, Tasmania and Victoria, by archives offices established in 1961, 1965 and 1973 respectively, and, in other States, by the archives sections of State libraries.

Australian National University Archives

The Australian National University Archives was established in 1954 when the records of the Australian Agricultural Company were acquired, and in 1959 its collecting activities were expanded to include records of employer and employee organisations. The aim is to gather primary source material to support advanced research within the university in economic history, history and political science. Records of over 100 businesses (135 deposits) and over 100 employer and employee organisations (221 deposits) are held.

The University Archives include deposits which have been microfilmed and pamphlet collections of interest to research workers in political history.

Business Archives Council of Australia

The Business Archives Council of Australia works for the preservation of business records and promotes the writing of business history. The Council itself does not collect business records. The main collecting centres are the Archives of the Australian National University, the University of New England and University of Melbourne. The Australian National University and the University of Melbourne have strong collections covering a wide range of business activity, and are respectively notable for records of trade unions and mining companies. The University of New England concentrates on rural industries. The recently formed Archives of Wollongong University College concentrates on collecting business and trade union records of the Wollongong region.

Other Australian archives

The Mitchell Library has been acquiring manuscript material since the early years of this century. More recently, the National Library, State libraries, some archives offices, a few public libraries and historical societies, the Australian Academy of Science, and the Australian War Memorial (which is also the archival authority for the custody and preservation of operational records of the armed services) have assembled important collections of private papers. Ecclesiastical archives have been set up by some of the churches. Some firms have established their own archives services and the Business Archives Council plays a co-ordinating role. State and local historical societies help to preserve regional, local and private historical material.

Botanical and zoological gardens

In addition to the zoological gardens referred to in the following paragraphs there are numerous privately owned zoos and sanctuaries, many of them at tourist resorts, which maintain collections of Australian flora and fauna. There are also various national parks, forests, reserves, etc., dedicated for public use, which are preserved largely in their natural condition. More detailed information is given in each State year book.

New South Wales: The Sydney Botanic Gardens are situated on the shores of Farm Cove, Sydney Harbour. They occupy 27 hectares and contain a large collection of flowering plants, shrubs and trees as well as hothouses of orchids and ferns.

The Zoological Gardens at Taronga Park, on the northern side of Sydney Harbour, occupy about 30 hectares and contain an aquarium. In 1972-73 paid admissions to the grounds were 918,762. The receipts of the zoological department amounted to \$908,223 in 1972-73 and expenditure was \$934,774. Exhibits at 30 June 1973 comprised 1,030 mammals, 1,951 birds, 314 reptiles and 1,637 invertebrates and fish.

Victoria: The main botanical gardens in the State are the Royal Botanic Gardens, an area of 36 hectares within 1.6 kilometres of the centre of the City of Melbourne, containing over 12,000 species of plants, of which there are some 30,000 individual specimens. Many species of native birds breed on islands in lakes within the gardens. In October 1970, an extension was made to the Royal Botanic Gardens by the purchase of 160 hectares at Cranbourne on Mornington Peninsula for purposes of a Botanic Gardens and Research Institute devoted to the growing, display and study of Australian native plants.

The Zoological Gardens in Royal Park contain a wide selection of animals, birds and reptiles. A wild life sanctuary is also maintained at Healesville.

Queensland: Botanical gardens have been established in Brisbane and in several other cities. The Brisbane Botanic Gardens occupy approximately 18 hectares on the banks of the Brisbane River in the central city area and are noted for their collections of palms, tropical trees and shrubs, and succulents; they contain over 8,000 species.

Initial development has started on a new botanic gardens in the foothills of Mount Coot-tha, about 5 kilometres from central Brisbane. The area being developed is approximately 81 hectares.

South Australia: The Adelaide Botanic Gardens covers 20 hectares and contains collections of Australian and exotic plants from low rainfall and sub-tropical regions. In glasshouses are collections of tropical, ornamental and economic plants. Special collections include cacti and succulents, bromeliads, and begonias. An up-to-date comprehensive botanical and horticultural library is maintained. The State Herbarium, established in 1952, contains about 250,000 specimens. Blackwood and Mount Lofty also have important plant collections.

The Zoological Gardens, opened in 1883, have an area of approximately 8 hectares, and contain a fine collection of animals, reptiles and birds.

Western Australia: A botanical garden and arboretum which contain approximately 1,200 species of native Western Australian plants and trees, are in Kings Park, a reserve of about 400 hectares close to the centre of Perth.

Tasmania: The Royal Tasmanian Botanical Gardens adjoining Government House of the Queen's Domain, contain a fine collection of exotic trees and shrubs and a small aviary.

Privately owned wildlife sanctuaries and zoos, each with a few exotic animals, are situated at Granton near Hobart and at Punch Bowl near Launceston. The Launceston City Council keeps a small collection of animals and birds at City Park.

Northern Territory: The Darwin Botanical Gardens occupy 30 hectares and feature 12 hectares of tropical plants of both native and overseas origin. Two hectares are used for an amphitheatre and contain a number of native and exotic plants. The Gardens are controlled by the Corporation of the City of Darwin.

Australian Capital Territory: The Canberra Botanic Gardens, a 40 hectare site on the lower slopes of Black Mountain have been under development since 1950. The Gardens were opened for public inspection in 1967 and were officially opened in 1970.

The Tidbinbilla Nature Reserve covers 4,650 hectares of the Upper Tidbinbilla Valley, about 40 kilometres from Canberra. It was declared a Nature Reserve under the Public Parks Ordinance in 1971. Attendances have risen from 42,700 in 1967 to approximately 140,000 in 1973.

The Nature Reserve at Jervis Bay consists of 4,300 hectares of coastal area. Although the area has been managed as a reserve over a number of years, it was only officially declared a reserve on 7 October 1971.

RECREATION

The Australian Department of Tourism and Recreation was established in December 1972 to co-ordinate all aspects of the development of recreation opportunities. In developing its policies, the Department has concentrated on the provision of five major aspects of leisure: community recreation, fitness, sports development, youth affairs, and tourism.

During the last four years, State governments have also established departments with special responsibilities for recreation. Some local government authorities are now employing recreation workers who are responsible for multi-purpose use of recreation facilities and for devising programs of community recreation.

Community recreation

The Department of Tourism and Recreation has undertaken a preliminary study of community recreation needs as part of a national survey to produce an inventory of recreation facilities, both man-made and natural. It also organised a national seminar, which was held in Canberra in April 1974, to focus attention on the Australian Government's approach to community recreation.

Other projects in the field of community recreation include an examination of the educational needs of, and the demand for, recreation workers; detailed studies of aspects of community centre development and community requirements; and an examination of the possible integration of community centres with facilities at schools.

Capital assistance program

The Department administers a capital assistance program to meet some of the immediate needs for recreation facilities in the community. Any project which increases the range of leisure opportunities within a local area is eligible for a grant under this program. Although development of specialist facilities is not excluded, emphasis is placed on facilities which encourage mass participation, e.g. multi-purpose facilities within which sporting, cultural and social programs can be pursued.

In 1973-74, an amount of \$4 million was allocated under this program. A total of 118 projects for the development of single and multi-purpose sporting and recreation complexes were approved for assistance.

Education for recreation workers

The Department commissioned a study into the education of recreation workers to provide a basis for the development of recreation manpower policies. The study recommended the establishment of courses in recreation at diploma and graduate levels at colleges of advanced education. Two courses have been started—one at the College of Advanced Education, Nedlands, Western Australia and the other at the Footscray Institute of Technology, Victoria.

This study was extended to examine the demand for recreation workers. It showed that 754 recreation workers were employed throughout Australia at the end of 1973. By the end of 1978, a further 2,560 workers will need to be trained.

Voluntary workers

A program to assess the effectiveness of voluntary leader training and to recommend the best way of organising the education of volunteer recreation leaders in each State is being conducted in co-operation with State government departments. The Department of Tourism and Recreation also encourages part-time workers to provide innovative programs for special groups such as the handicapped, the aged, young people and women. The Department's advisory service provides voluntary workers with information, ideas and advice to enable them to develop more effective programs and to exchange information about their activities.

Outdoor recreation

A task force was appointed to advise on the preparation of guidelines for the Department's future outdoor recreation programs. In particular, the task force has considered: the physical components of an Australia-wide outdoor recreation system and their interrelationship; the more effective development of this system; and the roles to be played by governments in this field.

Fitness

National fitness movement

The Australian Government initiated the National Fitness movement as a war-time measure to improve the standard of fitness of Australian youth. Under the *National Fitness Act 1941*, the Commonwealth Council for National Fitness advises the Minister on matters pertaining to national fitness. Various State National Fitness Councils, with the support of the Australian and State governments, administer national fitness activities catering for the total community. They are important in developing a comprehensive community recreation service throughout Australia.

In 1973-74, Australian Government assistance to the National Fitness movement, through the National Fitness Fund Trust Account, was increased from \$600,000 to \$1 million. Of this amount \$550,000 was directed to cover the operational expenditure of Commonwealth and State Councils and \$100,000 was provided as capital assistance on a \$1 for \$2 subsidy basis to improve national fitness facilities. An amount of \$300,000 was also provided to develop sports training facilities at national fitness camps and \$50,000 was allocated to conduct 'Fitness Australia'—a nation-wide fitness awareness campaign introduced on the recommendation of the Commonwealth Council for National Fitness.

Sports development

Sports assistance program

During 1973-74, national sporting organisations received more than \$370,000 in Australian Government assistance through a sports assistance program. The program subsidises the organisation of and participation in national sporting events and international events both within Australia and overseas.

The construction of sports facilities was also assisted by grants under the capital assistance program.

Life saving movement

Since 1951, the Australian Government has provided grants for both the Royal Life Saving Society and the Surf Life Saving Association of Australia. In 1973-74 each association received \$50,000 grant-in-aid for administration purposes. An additional grant on a dollar-for-dollar basis was made to the National Council of the Surf Life Saving Association mainly for the purchase of rescue equipment at club level. Three State centres, 10 branches and 139 clubs received assistance.

Australian Sports Council

In August 1974, the Australian Government established an Australian Sports Council, consisting of 14 members, to give expert advice on the development of sport and physical recreation.

Youth affairs

National youth organisations encourage young people to work with Aborigines, people in densely populated urban areas and with isolated groups in the outback. The Australian Government provides financial assistance to these organisations to enable them to better serve young people and the community in general. More than \$310,000 was awarded to national youth organisations in 1973-74.

The Department of Tourism and Recreation commissioned the National Youth Council of Australia to conduct a 'youth say' project to determine the recreational needs and aspirations of young people. The Department is also responsible for the operation, in Australia, of the Commonwealth Youth Program.

In co-operation with the Community Recreation Council of Western Australia, the Department of Tourism and Recreation conducted an experimental youth program to provide community services in Perth during January and February 1974.

Tourism

Until 1972, emphasis on tourism had been within the context of international travel and its contribution to Australia's balance of payments. The establishment of the Department of Tourism and Recreation has fostered an appreciation of the part tourism plays in providing a major recreational outlet for Australians.

The Department is responsible for the formulation of national tourism policies to assist the development of tourism in Australia and to promote greater domestic travel within Australia. It aims to attract more overseas visitors to Australia and to encourage them to travel more extensively in Australia by the development of Australia's tourist areas and tourist infrastructure. It is also the aim of the Department to encourage the development of a range of accommodation facilities for travellers, with particular emphasis on low-cost accommodation, and to obtain accurate statistical information on all aspects of tourism and travel.

Regional studies have indicated that overseas visitors form only a small proportion of total visitor traffic. For example, of an estimated 2 million visitors to Queensland in 1969-70, only 6 per cent came from overseas.

In 1973-74, Australian Government grants of \$1,263,000 were awarded for the development of certain types of uniquely Australian tourism projects. Additional assistance of \$250,000 was provided for allocation to Youth Hostel Associations and similar organisations providing low-cost accommodation, as well as for regional surveys of tourist areas. An amount of \$320,000 was provided for the promotion of domestic tourism.

Australian Tourist Commission

The Australian Tourist Commission was established in 1967 as a statutory body to encourage people from other countries to visit and travel within Australia. It has seven commissioners including representatives of the Australian and State governments and the tourist industry. In 1973-74 its budget was \$3 million.

Legislation was introduced in 1974 to increase the number of Commissioners to nine and to expand the traditional role of the Commission to include the promotion of more extensive travel by Australians within Australia.

In its overseas visitor promotion role, the Commission engages in a wide variety of marketing activities including consumer and trade advertising, industry seminars and familiarisation visits for travel agents, journalists and photographers. The Commission has its head office in Melbourne and branch offices in London, Frankfurt, New York, Los Angeles, Tokyo, Auckland and Sydney.

TRAVEL

An article outlining the history and growth of travel and the structure of tourist organisations in Australia, prepared by the Australian National Travel Association, appeared in Year Book No. 52, pages 1158-84. The following pages contain statistics of internal travel and travel to and from Australia, together with some descriptive matter.

Internal travel

In 1973-74, the first national survey of the Australian travel market was undertaken. The survey showed that Australians took an average of two trips of at least one night duration away from home. Fifty per cent of these trips lasted two nights or less and approximately 85 per cent of trips were intra-State trips only. One quarter of all trips, and over one half of all trips classified as main holidays, were taken in December and January. Car travel was the means of transport for 86 per cent of all trips. Private house accommodation was used in over 40 per cent of trips, with hotels and motels accounting for a further 20 per cent.

Overseas travel

Statistics about travellers to and from Australia are classified in the first instance by the actual or intended length of stay in Australia or in a country abroad; this classification distinguishes between permanent and temporary movement.

Statistics of permanent arrivals (immigrants) and permanent departures (emigrants) are shown in Chapter 7—Population.

Traveller statistics (overseas visitors and Australian residents)

Statistics of temporary arrivals and departures which are in the nature of travel statistics are included in this chapter. They comprise two main categories:

- (i) *Short-term.* Those who intend to stay or have stayed in Australia (overseas visitors) or in a country overseas (Australian residents) for less than a year.
- (ii) *Long-term.* Those who intend to stay or have stayed in Australia (overseas visitors) or in a country overseas (Australian residents) for a year or more, but not permanently.

Short-term movement includes Australian troops, regardless of their length of stay abroad, and Australian residents who may be away for more than a year but whose actual or intended stay in any one country is less than a year. It excludes persons who arrive in and depart from Australia on the same ship's voyage or on the same flight (variously called direct transit or 'through' passengers) or who change flights without leaving the airport's transit area, passengers on pleasure cruises commencing and finishing in Australia (see page 1036), and all crew. However, it includes persons who pass through the Customs barrier and declare the purpose of their visit to Australia to be 'in transit'. Short-term visitors are more numerous than long-term visitors and have come to be regarded as 'tourists' by many users of the statistics.

During the period October 1967 to December 1971, 276,885 United States troops came to Australia on rest and recreation leave. The last of them completed their leave in January 1972. For statistical purposes they were classified as short-term visitors travelling by air for holiday purposes and their country of residence and country of embarkation or disembarkation were shown as 'Asia—other'.

TRAVELLER STATISTICS—SUMMARY, AUSTRALIA

Year	Overseas Visitors				Australian Residents			
	Short-term		Long-term		Short-term		Long-term	
	Arriving in Australia	Departing from Australia	Arriving in Australia	Departing from Australia	Departing from Australia	Returning to Australia	Departing from Australia	Returning to Australia
1969	361,277	372,747	26,867	15,602	288,805	288,990	59,027	38,308
1970	416,128	431,039	31,194	18,727	352,526	351,929	64,215	42,099
1971	432,393	450,022	30,500	21,433	413,917	412,598	67,699	47,782
1972	426,403	441,320	26,559	24,251	504,519	490,962	66,853	54,278
1973	472,124	481,901	27,370	21,506	638,141	620,842	64,964	65,021

In addition to the basic classification of travellers shown above, certain other characteristics are ascertained. These characteristics are: sex, age, marital status, nationality, country of birth, occupation, intended and actual length of stay, purpose of journey, mode of transport, country of residence, country of embarkation or disembarkation, State of residence and State of embarkation or disembarkation.

The categories shown in the previous table are cross-classified by various characteristics listed above and resulting statistics are shown in considerable detail in the quarterly and annual bulletins *Overseas Arrivals and Departures* (4.1 and 4.23). Certain unpublished information is available on request. Selected traveller statistics are shown in the following tables.

Short-term travel is subject to marked seasonal variation, December being the peak month for the arrival of visitors and the departure of Australian residents.

OVERSEAS VISITORS AND AUSTRALIAN RESIDENTS: SHORT-TERM ARRIVALS AND DEPARTURES BY MONTH OF ARRIVAL OR DEPARTURE AND MODE OF TRANSPORT AUSTRALIA, 1973

Month	Overseas visitors						Australian residents					
	Arriving			Departing			Departing			Returning		
	By sea	By air	Total	By sea	By air	Total	By sea	By air	Total	By sea	By air	Total
January	1,379	36,780	38,159	1,942	52,648	54,590	2,954	35,347	38,301	2,188	72,431	74,619
February	1,701	41,470	43,171	1,428	43,594	45,022	4,059	25,687	29,746	1,873	41,230	43,103
March	1,640	35,954	37,594	2,082	43,159	45,241	4,274	41,467	45,741	1,960	33,440	35,400
April	1,114	35,191	36,305	1,308	37,358	38,666	3,090	64,074	67,164	1,802	35,024	36,826
May	926	32,219	33,145	1,246	40,313	41,559	4,322	53,603	57,925	1,629	43,074	44,703
June	595	25,492	26,087	840	28,189	29,029	2,755	53,636	56,391	3,041	42,175	45,216
July	853	33,277	34,130	804	31,011	31,815	2,535	47,667	50,202	1,963	46,415	48,378
August	1,207	36,554	37,761	801	37,158	37,959	2,334	68,716	71,050	2,045	56,119	58,164
September	820	32,282	33,102	771	35,551	36,322	2,255	41,142	43,397	2,385	72,512	74,897
October	1,550	37,183	38,733	963	34,932	35,895	2,348	34,445	36,793	3,636	61,744	65,380
November	1,306	45,777	47,083	994	43,074	44,068	2,440	40,565	43,005	2,365	49,246	51,611
December	2,812	64,042	66,854	858	40,877	41,735	2,467	95,959	98,426	3,391	39,154	42,545
Total	15,903	456,221	472,124	14,037	467,864	481,901	35,833	602,308	638,141	28,278	592,564	620,842

The following tables show the stated purpose of journey and intended length of stay abroad of Australian residents departing temporarily and the stated purpose of journey and intended length of stay in Australia of overseas visitors arriving.

AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY BY STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1973
(Persons)

Intended length of stay	Stated purpose of journey				Total
	Business	Holiday	Education	Other and not stated	
Short-term movement—					
Under 1 week	16,620	12,428	588	1,595	31,231
1 week and under 2 weeks	18,874	55,642	2,412	2,413	79,341
2 weeks and under 3 weeks	14,352	94,093	1,593	2,625	112,663
3 weeks and under 1 month	8,365	54,017	664	1,863	64,909
1 month and under 2 months	17,235	75,138	1,476	3,340	97,189
2 months and under 3 months	8,362	55,990	1,100	2,206	67,658
3 months and under 4 months	4,000	50,456	848	2,200	57,504
4 months and under 6 months	1,547	20,491	453	844	23,335
6 months and under 7 months	2,309	52,038	620	3,185	58,152
7 months and under 12 months	789	6,328	644	968	8,729
Not stated	3,025	24,348	662	9,395	37,430
Total short-term movement	95,478	500,969	11,060	30,634	638,141
Long-term movement—12 months and over	9,512	35,384	4,118	15,950	64,964
Total Australian residents departing temporarily	104,990	536,353	15,178	46,584	703,105

**OVERSEAS VISITORS ARRIVING, BY STATED PURPOSE OF JOURNEY
AND INTENDED LENGTH OF STAY, 1973**

(Persons)

<i>Intended length of stay</i>	<i>Stated purpose of journey</i>					<i>Total</i>
	<i>In transit</i>	<i>Business</i>	<i>Holiday</i>	<i>Education</i>	<i>Other and not stated</i>	
Short-term movement—						
Under 1 week	57,367	22,209	40,792	555	3,236	124,159
1 week and under 2 weeks	3,438	22,235	48,319	883	3,292	78,167
2 weeks and under 3 weeks	1,278	13,372	43,260	935	2,630	61,475
3 weeks and under 1 month	381	4,405	31,166	354	1,518	37,824
1 month and under 2 months	916	7,277	48,062	820	2,936	60,011
2 months and under 3 months . . . . .	..	2,232	23,465	848	1,517	28,062
3 months and under 4 months . . . . .	..	2,108	25,333	3,097	2,244	32,782
4 months and under 6 months . . . . .	..	550	5,840	848	703	7,941
6 months and under 7 months . . . . .	..	1,036	11,103	778	1,841	14,758
7 months and under 12 months . . . . .	..	406	1,634	4,332	988	7,360
Not stated	9,694	1,151	5,476	1,280	1,984	19,585
<i>Total short-term movement</i>	<i>73,074</i>	<i>76,981</i>	<i>284,450</i>	<i>14,730</i>	<i>22,889</i>	<i>472,124</i>
Long-term movement—12 months and over . . . . .	..	2,793	7,780	3,783	13,014	27,370
Total overseas visitors arriving	73,074	79,774	292,230	18,513	35,903	499,494

The average intended length of stay abroad of Australian residents departing in 1973 for short-term visits abroad was 62 days. The average intended length of stay in Australia by short-term visitors from overseas was 46 days. Of course, statistics for Australian residents refer to their total time away from Australia; for overseas visitors they refer only to the Australian portions of their trips.

In both cases, the majority of travellers are on holiday. A significantly higher proportion of overseas visitors are in Australia for the purpose of education, reflecting the number of students coming to Australia from South-East Asia.

Information about the countries of residence of short-term visitors, the countries of disembarkation of Australian residents travelling overseas in the short-term, and intended lengths of stay, are of particular interest to the tourist industry.

OVERSEAS VISITORS ARRIVING BY COUNTRY OF RESIDENCE AND INTENDED LENGTH OF STAY, AND AUSTRALIAN RESIDENTS DEPARTING BY COUNTRY OF DISEMBARKATION AND INTENDED LENGTH OF STAY: AUSTRALIA, 1973

Country of residence (visitors) and country of dise mbarkation (residents)	Overseas visitors arriving—intended length of stay						Australian residents departing—intended length of stay					
	Under 1 week	1 week and under 1 month	1 month and under 3 months	3 months and under 12 months	Indefin- ite, not stated etc.	Total	Under 1 week	1 week and under 1 month	1 month and under 3 months	3 months and under 12 months	Indefin- ite, not stated etc.	Total
Africa—												
Commonwealth countries	832	650	748	480	195	2,905	34	350	1,097	484	120	2,085
South Africa	1,401	1,257	1,059	787	263	4,767	44	871	3,302	2,714	411	7,342
Other	276	205	240	151	51	923	3	13	23	38	..	77
America—												
Canada	2,366	6,993	3,518	1,770	688	15,335	10	746	1,070	943	196	2,965
Other Commonwealth countries	129	246	186	65	28	654	..	9	68	37	8	122
United States of America— excluding Hawaii	28,250	39,026	8,224	3,704	1,495	80,699	208	8,407	10,302	6,222	1,614	26,753
Hawaii . . . . .													608	9,007	8,195	3,037	905	21,752
Other	745	1,000	546	393	115	2,799	12	357	839	498	124	1,830
Asia—												
Bangladesh, India, Pakis- tan, Sri Lanka	913	907	638	648	231	3,337	30	673	1,463	1,298	195	3,659
Hong Kong	2,399	2,902	1,764	942	446	8,453	1,291	9,571	18,725	14,267	2,452	46,306
Malaysia and Singapore . .	3,509	4,767	3,429	3,187	1,048	15,940	2,505	48,834	27,456	24,099	7,028	109,922
Other Commonwealth countries	46	116	98	145	28	433	..	9	127	501	114	751
Japan	7,514	7,771	1,594	907	614	18,400	214	2,234	4,679	619	358	8,104
Other	4,733	4,471	3,122	2,605	759	15,690	1,410	13,043	10,160	10,407	2,670	37,690
Europe—												
United Kingdom and Ireland	12,533	15,476	20,631	15,010	3,635	67,285	124	4,966	25,072	25,029	3,194	58,385
Other Commonwealth countries	85	93	283	303	37	801	..	..	9	684	127	820
Greece	298	334	368	2,091	219	3,310	4	583	3,160	11,303	1,938	16,988
Italy	1,010	1,163	1,488	2,391	380	6,432	40	1,072	6,138	17,596	2,833	27,679
Netherlands	1,624	1,091	2,050	1,896	534	7,195	3	620	4,428	3,350	346	8,747
Other	8,831	6,840	5,571	5,987	1,278	28,507	28	1,066	7,265	11,528	2,129	22,016
Oceania—												
Fiji	1,907	2,207	1,302	2,215	317	7,948	5,355	28,561	2,913	1,271	1,332	39,432
New Zealand	35,012	67,045	14,737	7,222	5,320	129,336	11,863	102,401	20,124	8,557	5,724	148,669
Papua New Guinea	6,124	9,004	12,600	7,987	1,069	36,784	5,527	10,865	5,982	1,989	2,649	27,012
Other Commonwealth countries	1,226	996	832	956	248	4,258	1,011	7,408	693	162	446	9,720
Other	2,396	2,906	3,045	999	587	9,933	907	5,247	1,557	1,087	517	9,315
Total	124,159	177,466	88,073	62,841	19,585	472,124	31,231	256,913	164,847	147,720	37,430	638,141

**AUSTRALIAN RESIDENTS DEPARTING TEMPORARILY
BY OCCUPATION AND SEX: AUSTRALIA, 1973**

<i>Occupational group</i>	<i>Short-term movement</i>			<i>Long-term movement</i>		
	<i>Males</i>	<i>Females</i>	<i>Persons</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
Professional, technical and related workers	53,217	34,317	87,534	5,404	5,206	10,610
Administrative, executive, and managerial workers	71,703	8,378	80,081	1,733	232	1,965
Clerical workers	20,679	40,650	61,329	2,217	6,275	8,492
Sales workers	15,766	6,492	22,258	1,050	668	1,718
Farmers, fishermen, hunters, timber getters, and related workers	9,608	894	10,502	519	24	543
Miners, quarrymen, and related workers	1,086	..	1,086	191	..	191
Workers in transport and communication	12,071	1,979	14,050	938	258	1,196
Tradesmen and production-process workers	48,126	5,511	53,637	6,413	752	7,165
Labourers (a)	16,130	..	16,130	3,377	..	3,377
Service (protective and other), sport, and recreation workers	14,775	9,572	24,347	926	1,163	2,089
Occupation inadequately described or not stated	4,784	810	5,594	543	120	663
Persons not in the labour force—						
Children and students	51,828	50,773	102,601	8,471	8,015	16,486
Other	18,587	140,405	158,992	819	9,650	10,469
Total	338,360	299,781	638,141	32,601	32,363	64,964

(a) Labourers (so described) not elsewhere classified, and freight handlers, including waterside workers.

Sea cruises from Australia

The foregoing statistics exclude passengers on pleasure cruises commencing and finishing in Australia on ships not then engaged in regular voyages, and to which modified documentation requirements apply. Until 13 June 1972 such cruises were restricted to a period not exceeding 30 days and to ports in the South-West Pacific. On that date the period was extended to 6 weeks and the ports visited to those adjoining the Pacific or Indian oceans but excluding those on the east coast of Africa or the west coast of the Americas. The numbers of cruises and cruise passengers during the last three years are shown in the following table.

**SHORT PLEASURE CRUISES IN THE SOUTH-WEST PACIFIC
AUSTRALIA, 1971 TO 1973**

<i>Duration of cruise in days(a)</i>	<i>1971</i>		<i>1972</i>		<i>1973</i>	
	<i>Cruises</i>	<i>Passengers</i>	<i>Cruises</i>	<i>Passengers</i>	<i>Cruises</i>	<i>Passengers</i>
Less than 7	2	1,672	..	..	1	1,284
7 and less than 10	3	3,443	6	6,604	7	3,838
10 and less than 13	7	6,568	14	12,574	22	18,225
13 and less than 16	31	28,195	30	20,999	34	24,038
16 and less than 19	20	2,542	8	4,359	6	4,661
19 and less than 22	2	1,742	2	740	6	2,547
22 and less than 31	..	..	3	1,509	2	1,983
31 and over	..	..	1	249	7	3,412
Total	65	44,162	64	47,034	85	59,988

(a) The duration of a cruise is the period during which the ship is absent from Australia.

CHAPTER 30

THE TERRITORIES OF AUSTRALIA

The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are: Norfolk Island; the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. There is also the Territory of Ashmore and Cartier Islands, deemed to form part of the Northern Territory.

Papua New Guinea, formerly the Territory of Papua and the United Nations Trust Territory of New Guinea, became formally self-governing on 1 December 1973; for details see page 1069. At time of writing, the date for full independence had yet to be fixed. The usual section on Papua New Guinea has therefore been included in this chapter of the Year Book.

Information on all Territories except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 5, 22, and 23 of Chapter 1. More detailed statistics and additional descriptive matter are to be found in the Annual Reports of the Administrations of the various Territories and in the *Northern Territory Statistical Summary* (1.6) and the *Australian Capital Territory Statistical Summary* (1.7) issued by this Bureau. Statistics for the Northern Territory and the Australian Capital Territory are also included in chapters dealing with particular subjects. The Statistician, Papua New Guinea, issues a number of publications containing statistics relative to these two Territories, separate and combined.

THE NORTHERN TERRITORY

General description

Area

Upon the extension of New South Wales westwards to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1 January 1911. The total area is 1,346,200 square kilometres.

Legislation and administration

On 1 January 1911 the Territory was transferred from South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, page 940.

The *Northern Territory (Administration) Act 1910-1974* provides for an Administrator, appointed by the Governor-General, to administer the Territory on behalf of the Australian Government.

Until its amendment in 1974, the Act provided for a Legislative Council for the Northern Territory to make ordinances for the peace, order and good government of the Territory. Until the conclusion of its final sittings on 26 September 1974, the Council consisted of 6 official members and 11 elected members, with the President of the Council elected from among the elected members.

Following the amendment of the Act, and general elections held on 19 October 1974, the Legislative Council was replaced by a Legislative Assembly, consisting of 19 elected members, each representing an electoral district in the Territory. The Speaker of the Assembly—formerly the President of the Council—is elected from among the members of the Assembly, and all legislation is initiated by the members.

Ordinances passed by the Legislative Assembly are presented to the Administrator for assent. The Administrator is required by the Act to reserve ordinances relating to certain matters, including Crown Lands and the Aboriginal inhabitants of the Territory, for the Governor-General's pleasure; others he may assent to, withhold assent from, or return to the Legislative Assembly with recommended amendments. The Governor-General may, within six months, disallow any ordinance assented to by the Administrator and, in respect of an ordinance reserved for his pleasure, he may assent,

withhold assent, withhold assent to part of the Ordinance and assent to the remainder or recommend to the Administrator any amendments to the laws of the Territory that he considers desirable arising out of his consideration of the ordinance. Ordinances passed by the Legislative Assembly, whether assented to or withheld partially or in full from assent, are to be laid before each House of Parliament as soon as practicable.

The Act also provides for an Administrator's Council to advise the Administrator on any matter referred to it, either by the Administrator or in accordance with the provisions of any ordinance of the Territory. Prior to the 1974 amendment of the Act, the Council consisted of the Administrator, and 2 official and 3 elected members of the Legislative Council. Since the amendment of the Act and the election of the Legislative Assembly, the Administrator's Council consists of the Administrator and 5 members of the Assembly.

The Territory elects one member to the House of Representatives.

The Corporation of the City of Darwin was established in 1957. The Corporation comprises a Mayor and ten aldermen (two for each ward) elected by adult franchise. Alice Springs was constituted a municipality on 25 June 1971 and the first election held on 26 June 1971. The Alice Springs Corporation consists of a Mayor and eight aldermen elected by adult franchise. Elsewhere in the Territory, municipal services are provided by the Administration. Town Management Boards are established in Katherine and Tennant Creek. Each of these boards consist of five members elected by adult franchise and four members appointed by the Administrator. The function of the Boards is to advise the Administrator on local matters.

Physical geography

The Territory is within the torrid zone, with the exception of a strip about 300 kilometres wide which lies south of the Tropic of Capricorn.

The low flat coastline seldom reaches a height of 30 metres. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The coastline of 6,200 kilometres is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port for general use, however, is Darwin.

Inland the country generally is devoid of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the seventeenth or eighteenth parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior system. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

Climate, fauna and flora

There are two main climatic divisions, the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly all the rainfall occurs in the summer months.

The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of fresh-water fish and littoral Mollusca. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventive measures are taken. Mosquitoes and sandflies are very troublesome in the "top end" particularly in the wet season. Most types of native fauna are protected and buffaloes exist in large herds on the northern coastal plains.

The vegetation is north Australian in type but a number of forms belong to the Malayan and Oceanic regions. The climate and generally poor soils associated with it give rise to tropical savannah vegetation, with the size and volume of woody material present being closely related to rainfall and the quality of the forests decreasing strikingly as one proceeds inland from the northern coastline. In the north, cypress pine which is termite resistant, ironwood, bloodwood and paperbark timbers are cut and milled for local building purposes. Further inland, particularly on the Barkly Tableland and parts of the Victoria River district, there are better grazing grasses and some shrubs, while the wide belt of sandy plain between the Barkly Tableland and the ranges in the Alice Springs area, carries mainly spinifex grass and low scrub. The plains of the Alice Springs district carry chiefly an acacia scrub known as mulga, spinifex and other sparse grasses. The principal families represented in the interior are *Gramineae*, *Chenopodiaceae*, *Compositae* and *Mimosaceae*.

Population

See also the chapters Population and Vital Statistics.

The population of the Northern Territory at the census of 30 June 1971, was 48,627 males, 37,763 females, 86,390 persons. These figures include an Aboriginal population of 11,686 males, 11,567 females, 23,253 persons. A total of 4,004 Aborigines were enumerated in urban areas of the Territory, the remainder were enumerated in areas classified as rural. While some Aborigines choose to live on reserves, a large area of reserved land (about 244,000 square kilometres) has been maintained to provide economic resources from which the Aborigines may benefit either directly or from royalty payments.

Aboriginal Affairs

Policy

Policy statements in recent years have been moving away from specific definitions such as 'assimilation' to a more open-ended approach which does not presuppose any particular future for the Aboriginal people. The underlying principle of this approach has been described as 'self-determination', in line with the emphasis on Aboriginal involvement, in all stages of policy making.

In general, the Government aim is to remove legal, social and economic discrimination against Aborigines, and to provide opportunities to restore their lost power of self-determination in these areas.

Legal status

As Australian citizens Aborigines are entitled to equality before the law. The Department of Aboriginal Affairs and other Australian government departments and agencies, for the purpose of administering various programs designed to benefit Aborigines, define an 'Aboriginal' or 'Torres Strait Islander' as a person of Aboriginal or Islander descent who identifies as an Aboriginal or Islander and is accepted as such by the community with which he is associated.

Special schools for Aborigines

The special schools for Aborigines were combined with the community schools in February 1973.

Land

There are about 350 separate Aboriginal reserves in Australia, comprising about 541,300 square kilometres of which 244,000 is located in the Northern Territory.

Early in 1973 Mr Justice A. Woodward was appointed as sole Commissioner to enquire into Aboriginal land rights in the Northern Territory and to advise the Australian Government. The final report of the Commission was issued in May 1974 and the recommendations have been accepted in principle by the Government. The Report recommends that land be vested in Aboriginal communities in fee simple and makes recommendations on a number of related matters.

At present, royalties from the mineral and timber activities carried on within reserves are paid into the Aborigines Benefits Trust Fund, established in 1952. Loans or grants are made from the fund to any Aboriginal or group of Aborigines in the Northern Territory on the advice of a special advisory committee which includes a majority of Aboriginal representatives. Moneys in the fund may be used for a wide variety of purposes which would benefit the Aboriginal people. Ten per cent of the royalties paid by the mining companies at Gove and at Groote Eylandt are paid into special funds for the use of Aborigines at Yirrkala and at Groote Eylandt respectively.

Aboriginal communities are also being assisted to purchase land off reserves, and a number of properties have been bought with Government assistance. An Aboriginal land fund is being established, with provision for expenditure of up to \$5 million a year for ten years for this purpose.

Community services and affairs

Government policy in the administration of Aboriginal affairs is to work as far as possible through existing State and Australian Government departments and instrumentalities, and the Department of Aboriginal Affairs has primarily a policy planning and co-ordinating role. Responsibility for a variety of community services on Aboriginal reserves and in Aboriginal communities in the Northern Territory is being transferred from the Northern Territory Division of the Department to other appropriate authorities. The Departments of Education and Health recently assumed full responsibility for education and health respectively in Aboriginal communities in the Northern Territory, and the responsibility for a number of other functions such as town services on reserves and social welfare services is under review.

Special programs for Aborigines

To meet the needs of Aboriginal people throughout Australia the Australian Government has developed, on a national basis, a variety of programs in fields such as health, education, housing, employment and vocational training, special works, regional projects and economic enterprises. These are available to Aborigines in the Northern Territory, but the Australian Government, having direct responsibility for the administration of Aboriginal affairs in the Northern Territory, is able to take special initiatives there.

Attention is being given to changing the institutional character of Aboriginal reserve communities. Supervisory, managerial and technical staff will be replaced by community development advisers, consultants, and workers employed by the communities themselves. Programs are designed to encourage and strengthen the capacity of Aborigines to manage their own affairs, to increase their economic independence, and to reduce existing social and other handicaps facing them. The Government is also able to support and encourage Aboriginal initiative by responding directly to individual communities which wish to develop their own social or economic projects: grants may be made to communities to enable them to improve community facilities and amenities, and to help them to establish economic enterprises.

The Government policy is to provide Aboriginal primary school children in Aboriginal communities with education in their own languages as far as is practicable. Bilingual education programs were initiated in five schools in Northern Territory Aboriginal communities in 1973 as a first step in implementing the new policy.

Production

See also the chapters dealing with particular subjects.

Land tenure

Nearly 60 per cent of the total area of land in the Northern Territory is held under various forms of lease or licence which are described hereunder. The remainder comprises unoccupied and unreserved areas (22.98 per cent), reserved (19.75 per cent) and freehold (0.06 per cent).

The Australian Government has for some time been conducting a comprehensive review of pre-existing policies affecting land tenures and the interests of Aborigines in land holding. An enquiry into Aboriginal land rights was held by Mr Justice Woodward, who made a report to the Australian Government in April 1974. Legislation arising from the report is now being prepared.

A Commission of Inquiry into Urban Land Tenures was also established, under the chairmanship of Mr Justice Else-Mitchell, and in November 1973 a first report was made. Various government Departments have studied the Report, and further submissions have been made to the Commission. A second and final report is expected to be made early in 1975.

The various forms of lease or licence of lands are as follows:

Pastoral leases —granted for periods not exceeding 50 years.

Agricultural leases —granted in perpetuity over areas generally limited to a maximum of 40,470 hectares approximately.

Leases of town lands —granted in perpetuity.

Special purposes leases—granted for a term of years or in perpetuity, for purposes other than pastoral, agricultural or mining, or private residential purposes within a town.

Church lands leases —granted for church purposes at a nominal rent in perpetuity.

Miscellaneous leases —granted for any prescribed or approved purpose, for a term of years or in perpetuity.

Grazing licences —granted to graze stock on Crown Lands for periods not exceeding one year.

Occupation licences —granted for manufacturing, industrial or any prescribed purposes for periods not exceeding five years.

Miscellaneous licences —granted for periods not exceeding one year.

With the exception of leases within the Darwin Town Area or a municipality, which are granted at nominal rentals (10 cents per annum if and when demanded), the foregoing leases and licences are granted at specified rentals or rentals fixed by the Administrator and subject to reappraisal, and under various prescribed or specified conditions.

Pastoral and agricultural industries

Beef cattle production is the major rural industry in the Northern Territory. The beef industry has been characterised throughout its history by a slow rate of expansion, due largely to the poor quality of native pastures and unsatisfactory market outlets. Recent developments in pasture improvement, the opening in 1963 of export abattoirs at Katherine and Darwin and better disease control have encouraged producers to improve the quality of their cattle. This, coupled with better management techniques, improved pasture establishment and various incentives and research programs introduced by the Government to encourage the development of the pastoral industry, has resulted in a continuing increase in turnover figures and value of production.

In the past few years considerable capital has been attracted into land development. Two factors have been principally responsible. The first has been the demonstration by the Department of the Northern Territory and C.S.I.R.O. that Townsville stylo (T.S.) can be grown successfully as a pasture legume in the higher rainfall areas of the Territory. The economic feasibility of this practice has been firmly established by station experience and sustained by favourable beef prices. Improved pasture areas have grown considerably and there has been a greater use of phosphatic fertilisers in the last few years. The second development, the commercial production of grain sorghum, has so far occurred on only a few properties. It requires arable land and considerable capital input. Grain sorghum is still at an early stage of testing; nevertheless it promises to provide a more capital intensive primary industry.

Animal production has been augmented in recent years by the buffalo meat industry. Interest in domestication has been developed on the sub-coastal plains properties which will be necessary for further advancement of this industry. Through the development of more intensive cattle production utilising improved pastures, tropical legume seed production received considerable impetus. A seed certification scheme has been introduced by the Department of the Northern Territory to support this industry.

Increasing private investment in rural development is leading to greater pressures upon the Government for extension services and research. The work of C.S.I.R.O. and the Department of the Northern Territory research stations and experimental farms is providing the basis for continuing rural development. As new knowledge is being gathered it will be followed by testing on farm scale. The research institutions in existence in the Northern Territory are as follows.

Arid Zone Research Institute—Alice Springs. With the completion of the new research laboratory in 1967 more emphasis is being placed on arid zone research in the 'Centre' and the need to conserve valuable pastoral lands while achieving maximum productivity.

Beatrice Hill Animal Husbandry Research Station. It has two main roles, one as a regional station examining suitable pasture and animal production systems in the Coastal Plains/Darwin area and the second involving basic studies into breeding and breeds with wider implications. Its efforts have been largely devoted to the animal breeding investigations with some attention being paid to the development of improved pasture systems, including establishment, maintenance and the reaction to various grazing rates. Breeding trials are being conducted with Santa Gertrudis, Brahman and Africana, cross-breeds and Short-horns. Banteng cattle are being studied as a source of tropical blood for breeding cattle adaptable to Territory conditions and a small herd of cross-bred cattle has now been developed. Buffalo/Brahman comparison studies are also being undertaken.

Victoria River Experiment Station. This is the only Government Experiment Station in the rangelands of the Northern Territory. Work is being undertaken on genetic improvement of the local breed of Shorthorn cattle, evaluation of improved pastures, supplements, breed comparisons and range management studies.

Upper-Adelaide River Experiment Station. The station is mainly concerned with regional investigations of pasture and animal production for the Murrumbidgee area including stocking rates on improved and native pastures, comparison studies of improved pastures and testing of new potential pastures, management of pastures on flood plains and feeding supplementation trials.

Berrimah Experiment Farm. The work of this farm has been mainly restricted to pasture and fodder crop investigations, plant introduction, sorghum breeding, fruit, vegetable and weed control trials and intensive animal studies.

Katherine Experiment Farm. This farm services the southern part of the Daly River Basin and has a larger component of cropping work than other stations. Work being conducted includes utilisation of Townsville stylo, pasture improvement and management, sorghum, peanut, guar, cowpea and bulrush millet trials and various aspects of cattle management.

Coastal Plains Research Station. The work on this station includes rice and pasture improvement, particularly in relation to suitable legumes for the sub-coastal plain.

Douglas-Daly Experiment Station. This station is concerned with developing animal production systems for the higher rainfall part of the Daly River Basin including evaluation of pastures under grazing, stocking rates, supplementary feeding, use of fertilisers, pasture establishment, and pasture/animal production trials.

Other research sites. Research and trials are also being conducted at selected sites on maize, soybeans, sorghum, peanuts, *Stylosanthes spp.* and weed control.

NORTHERN TERRITORY: AREA AND PRODUCTION OF CROPS

<i>Crop</i>	1968-69	1969-70	1970-71	1971-72	1972-73
	AREA(a) (hectares)				
Fruit—Bananas	(b)	(b)	(b)	31	21
Pineapples	(b)	(b)	(b)	9	6
Other	36	29	49	48	43
<i>Total fruit</i>	36	29	49	88	70
Peanuts	(b)	(b)	23	40	13
Sorghum for grain	(b)	(b)	1,309	5,638	11,032
Vegetables for human consumption	103	112	102	160	170
Other crops	6,464	6,457	(c)856	(c)1,434	(c)823
<i>Grand total(a)</i>	6,603	6,598	2,339	7,360	12,108

PRODUCTION

Fruit—Bananas	tonnes	(d)	(d)	170	228	242
Pineapples	"	(d)	(d)	(d)	12	16
Peanuts	"	(d)	(d)	15	44	..
Sorghum (grain)	"	(d)	(d)	1,525	13,806	17,041

(a) Excludes rice; details are not available for publication. (b) Not available for publication, included in Other crops.
(c) Principally fodder crops. (d) Not available for publication.

NORTHERN TERRITORY: LIVESTOCK

('000)

31 March—	Horses	Cattle	Sheep	Pigs
1969	(a)39	1,190	(a)10	2
1970	41	1,179	8	4
1971	41	1,145	9	3
1972	(b)	1,166	7	5
1973	(b)	1,237	3	7

(a) At 30 June. (b) Not collected.

Mining

The mining industry is the major contributor to the income of the Northern Territory. Mineral output was valued at \$80 million in 1972-73 and at \$126 million in 1973-74. The main minerals being produced are bauxite, manganese, gold, copper, bismuth and iron ore.

The principal centres of production are Gove Peninsular, Groote Eylandt, Tennant Creek and Frances Creek. Exploration for new ore bodies continues at a high level.

A bauxite mining and treatment project based on extensive bauxite deposits has been developed at Gove at a cost of \$310 million. Under an agreement with the Australian Government, ratified by a Special Ordinance in 1968, Nabalco Pty Ltd undertook to develop the deposits. A supplementary Agreement signed in 1969 set the minimum Australian equity in the project at 30 per cent.

A joint venture now operates the project in which the respective rights are held, 70 per cent by Swiss Aluminium Australia Pty. Ltd. and 30 per cent by Gove Alumina Limited (a consortium of seven Australian companies). The first stage of an alumina plant to process the bauxite was opened on 1 July 1972. The capacity was expanded from 500,000 to 1 million tonnes in early 1973. The agreement provides that Gove Alumina Limited can export a total of 40 million tonnes of untreated bauxite over 20 years; exports commenced in 1971.

Manganese ore is being produced from extensive deposits at Groote Eylandt in the Gulf of Carpentaria. Production capacity has been increased since the commencement of operations and is expected to reach 3 million tonnes in 1975-76. Groote Eylandt supplied all Australia's requirements of metallurgical grade manganese ore and large tonnages are exported to Japan, Europe and the U.S.A. Total shipments of ore in 1973-74 amounted to 1,671,000 tonnes.

Frances Creek is the only iron ore mine in the Territory and all ore produced is exported through Darwin to Japan. Total ore production in 1973-74 was 717,000 tonnes valued at \$4.3 million.

Most of the copper and gold produced in the Territory is obtained from the underground mines of Peko Wallsend Ltd. at Tennant Creek. Production from these mines in 1973-74 was 15,021 tonnes of copper, 5,160,000 grams of gold, 3,493 kilograms of silver and 707 tonnes of bismuth, valued at \$41 million. Four mines are currently in production and a flash smelter commenced operation in December 1973.

Large deposits of uranium ore have been discovered in the Alligator Rivers region about 240 kilometres east of Darwin. The most important discoveries are Ranger, Nabarlek, Jabiluka and Koongarra. The Ranger deposit will be exploited by a joint venture between the Government and Ranger Uranium Mines Limited. The Government is examining the feasibility of a regional centre to serve the mining industry as well as forestry, pastoral and tourist industries in the region. The Alligator Rivers region is considered to be a uranium province of world importance.

Investigations are continuing into possible methods of treating the extensive lead-zinc deposits located in the McArthur River district. Conventional metallurgical processes are not considered suitable for the treatment of these ores. A pilot plant is being established at McArthur River to further investigate a treatment method. Other mineral deposits of possible economic significance exist in the Rum Jungle, Jinka Plains, Jervois Range and Hatches Creek areas.

The following table shows preliminary results of the Mining Censuses taken in respect of the years ended 30 June 1970, 1971 and 1972.

NORTHERN TERRITORY: MINING ESTABLISHMENTS

	1969-70	1970-71	1971-72 ^p
Establishments operating end of June No.	25	24	26
Persons employed ^(a) No.	1,417	1,495	1,587
Wages and salaries \$m	7.5	8.7	10.1
Turnover \$m	38.4	41.3	47.7
Opening stocks at 30 June \$m	4.7	5.3	6.2
Closing stocks at 30 June \$m	5.2	6.1	8.9
Purchases, transfers in and selected expenses \$m	13.2	20.0	14.7
Value added ^(b) \$m	25.7	22.2	35.8
Fixed capital expenditure ^(c) \$m	13.7	31.8	21.7

(a) At end of June. Includes working proprietors. less purchases, transfers in and selected expenses.

(b) Turnover plus increase (or less decrease) in the value of stocks, (c) Outlay on fixed tangible assets less disposals.

Petroleum and natural gas

Offshore operations represented the main activity in petroleum exploration during 1973-74. At 30 June 1974 there were 6 oil permits covering 152,810 square kilometres, 2 oil licences covering 593 square kilometres and 20 Exploration Permits covering 3,228 blocks (approximately 266,770 square kilometres). Two oil leases covering 280 square kilometres are under application.

Drilling of the Petrel structure in the Bonaparte Gulf resulted in a promising discovery of natural gas. During 1974, 8 offshore wells were completed and a further 2 spudded but not completed. The Puffin No. 2 had shows of both oil and gas, while the Troubadour Well had gas shows.

No wells were drilled onshore during 1974. However, exploration to date of the Mereenie oil and gas field has indicated reserves (*in situ*) of about 48 million cubic metres of oil and up to 28,000 cubic metres of recoverable reserves of gas. The recovery of the oil presents some difficulties but the feasibility of establishing a small refinery at Alice Springs is being examined by the exploration companies and the Government.

The existence of a substantial natural gas reservoir at Palm Valley about 113 kilometres west of Alice Springs has been known since the mid sixties. Exploration is continuing to determine the total gas reserves in the area.

Forestry

Forestry activities in the Northern Territory commenced in 1959 when the Forestry and Timber Bureau established a northern regional station in Darwin. In the same year the Legislative Council of the Northern Territory passed a Forestry Ordinance to regulate the harvesting of forest produce and the management of forests. Activities during the first 10 years were largely devoted to assessing the native forest resource, establishing species trials to determine what species were suitable for plantation establishment and examining the silviculture of native forests. Some forest development work was carried out under the terms of two Cabinet approvals. This work mainly took place within Aboriginal reserves in order to provide employment for Aborigines and included plantation establishment, the protection of native forests from fire to encourage regeneration and the training of Aborigines in sawmilling.

In 1970 a new five year forest development program was commenced which expanded forestry activities both within Aboriginal reserves and in forest reserves and potential forest reserves. It has been estimated that 75 per cent of the potentially productive forest land in the Northern Territory occurs within Aboriginal reserves.

The program provides for the extension of fire protection and forest management activities within cypress pine and other native forest in Arnhem Land and on Melville Island. A major objective of the program is to provide fire protection and forest management to 40,000 hectares of mixed cypress pine forest within Arnhem Land. The program also provides for the setting aside of forest areas to be managed for multiple use purposes including timber production, recreation and the protection of soil and water sheds. The annual establishment of 400 hectares of coniferous plantation is included in the present program. Forest assessment activities are to be continued and fire control activities are to be expanded within forestry, pastoral and agricultural areas as well as tree planting activities for conservation in the arid zone.

The consumption of sawn timber in the Northern Territory during 1973-74 was estimated at 25,000 cubic metres. It is not possible to obtain accurate statistics because of the substantial, but unknown quantity of sawn timber which enters the Northern Territory by road. Local production during 1973-74 was 900 cubic metres. Aboriginal sawmilling industries are being encouraged and it is estimated that within 10 years their annual production will be in the order of 10,000 cubic metres. By the year 2000, the Northern Territory will have an estimated annual sawn timber requirement of 80,000 cubic metres which could be met locally from native forests and plantations if an expanded plantation program is commenced in the near future.

Three pressure treatment plants are in operation treating round posts, rails and poles for use by rural industries and production is expected to reach 1,000 cubic metres by 1975.

Resource investigations have shown there are three areas within the Northern Territory with significant pulpwood resources which may be suitable for exploitation. These areas are within the present Aboriginal reserves. There has been some interest by Japanese paper industries in the past and it is likely that this will increase in the next decade due to the rapidly increasing Japanese demand for paper and paper products.

The tropical *Eucalyptus* forests in the Northern Territory are comparatively low in timber productivity per unit area. Forest policy within the Northern Territory provides for multiple use management where feasible in order to optimise other forest values including soil and water conservation, forest recreation, grazing and the conservation of flora and fauna. The financial yields from forest areas can be increased through this form of management.

The total revenue derived from the forest is related to the levels at which royalties and fees are set. In principle, direct forest revenues should be adequate for the establishment, management and protection of the forest area. The forests provide renewable resources on which industries can be based and which will develop substantially greater income than direct revenues from the forest.

Fishing

Following preliminary surveys which indicated the existence of valuable prawn resources off the Northern Territory coast, prawning operations were approved in 1968 in waters adjacent to the Territory. Three prawning companies are now operating, all of which are joint Australian-Japanese ventures. Two prawn processing plants are in operation in Darwin while another operates on Groote Eylandt. Boats and equipment valued at \$15 million were based in the Northern Territory in 1973-74. During 1973-74, 3.9m kilograms live weight of prawns were caught by Northern Territory prawning

ventures. The Territory exported 1.3m kilograms (processed weight) valued at \$4.16 million representing 18.7 per cent of Australian prawn exports. The other main fishery in the Territory is that based on barramundi in estuaries and inshore areas. This species also provides good sport fishing in inland areas. Commercial catches of barramundi totalled 179,000 kilograms (filleted weight) for the calendar year 1973.

NORTHERN TERRITORY: PRINCIPAL FISHERIES

		1968-69	1969-70	1970-71	1971-72	1972-73
Prawns—						
Estimated gross weight of prawn catch	tonnes	1,077	3,938	4,108	2,629	2,584
Gross value of prawns	\$'000	831	3,646	3,083	2,562	4,005
Fish—						
Estimated live weight of fish catch	tonnes	264	125	253	391	619
Gross value of fish	\$'000	96	51	139	191	380
All fisheries—						
Number of boats engaged		110	82	127	130	163
Number of men employed		537	437	542	532	561

Secondary industries

The secondary industries that have so far been established in the Territory have been largely the service industries normally associated with a developing area, such as electrical repairs, printing, motor and marine engineering, plumbing, welding, joinery, sheet metal work, and blue metal crushing. A number of food processing activities such as small-goods manufacture, soft drink, prawn processing and breweries have been established. Industrial investments by private interests in recent years include plants to manufacture bitumen, clay bricks, concrete bricks, reinforcing steel, concrete products, fencing materials, building components and agricultural equipment.

The following table shows preliminary results of the Manufacturing Censuses taken in respect of the years 1971-72 and 1972-73.

NORTHERN TERRITORY: MANUFACTURING ESTABLISHMENTS

		1971-72	1972-73
Establishments at 30 June	No.	80	99
Persons employed(a)	No.	1,194	2,224
Wages and salaries	\$m	5.8	13.9
Turnover	\$m	28.8	42.8
Opening stocks at 30 June	\$m	3.5	8.5
Closing Stocks 30 June.	\$m	3.5	16.5
Purchases, transfers in and selected expenses	\$m	17.5	23.1
Value added(b)	\$m	11.3	27.6

(a) Average over whole year. Includes working proprietors. (b) Sales, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Tourism

Tourism has become one of the Territory's major industries in recent years. There were about 120,000 visitors to the Northern Territory in 1973-74. The estimated value of the industry in 1973-74 was \$30 million.

A firm of consultants has reported on the tourism potential of Central Australia, and in particular the Ayers Rock-Mount Olga National Park. These findings have been published in the reports Tourism Plan for Central Australia and Ayers Rock-Mount Olga National Park Development Plan. The Government has established an advisory group representing Government departments, Aborigines and tourist interests to advise on the implementation of recommendations arising from the reports. To date environmental studies have been undertaken and \$150,000 has been set aside for urgent minor environmental repairs.

National Parks and Reserves

About 43,000 square kilometres have been set aside as wildlife sanctuaries under the Wildlife Conservation and Control Ordinance. They are controlled by the Chief Inspector of Wildlife who is an officer of the Department of the Northern Territory. Wildlife protected areas total 236,000 square kilometres, the bulk of which consists of Aboriginal reserves.

The Northern Territory Reserves Board administers some 37 national parks and reserves covering an area of over 2400 square kilometres. The Board is responsible under the National Parks and Gardens Ordinance for the care, control and management of these reserves, and its functions include the preservation and protection of natural and historical features and the encouragement of public use and enjoyment of land set aside in such reserves.

Trade, transport and communication

Trade

No comprehensive record is kept of the trade between the States and the Territory. The following table shows the values of the principal commodities imported into and exported from the Northern Territory from or to overseas countries.

NORTHERN TERRITORY: PRINCIPAL OVERSEAS IMPORTS AND EXPORTS (S'000)

Commodity	1968-69	1969-70	1970-71	1971-72	1972-73
IMPORTS					
Petroleum and shale spirit—					
Aviation kerosene	1,513	1,093	1,119	212	87
Automotive spirit	577	706	1,051	1,108	1,399
Automotive distillate	589	1,103	930	1,437	1,185
Furnace fuel	659	567	837	1,847	2,233
Other(a)	743	1,077	1,226	1,912	1,645
Timber	383	548	404	546	771
Iron and steel manufactures	893	1,172	833	839	93
Machinery and transport equipment(b)	12,757	23,534	11,464	9,049	32,827
Other articles	3,686	10,029	5,806	8,916	9,350
Total imports	21,800	39,829	23,670	25,866	49,590
EXPORTS(c)					
Meats	4,999	4,896	5,331	5,744	7,375
Fresh prawns and shrimps	605	4,917	5,627	4,853	4,479
Hides and skins, raw	209	280	183	118	369
Iron ore	6,467	9,124	7,094	6,847	5,656
Other ores and concentrates	8,539	9,207	10,939	16,054	22,928
Other articles	8,115	21,301	7,285	15,627	54,891
Total exports	28,934	49,725	36,459	49,243	95,698

(a) Includes industrial and marine diesel fuel, oil for use as refinery stock, etc. (b) Includes value of oil search equipment (floating structures, etc.) which were brought to the Northern Territory for temporary operation and moved overseas after the planned exploration activities were completed. (c) Includes domestic exports and re-exports.

Railways

The Commonwealth Railways operates the Central Australia Railway from Port Augusta in South Australia to Alice Springs over a distance of 1226 kilometres of which about 322 kilometres are in the Northern Territory. The line is standard gauge from Port Augusta to Marree, a distance of 357 kilometres and narrow (1067 mm) gauge from Marree to Alice Springs. The Australian Government has approved in principle the construction of standard gauge line between Tarcoola and Alice Springs, to replace the Marree-Alice Springs section of the Central Australia Railway

and survey work has commenced. The Commonwealth Railways also operates the North Australia Railway between Darwin and Birdum on a narrow (1067 mm) gauge over a distance of 510 kilometres. The two inland terminals, Alice Springs and Birdum are about 1,014 kilometres apart and are connected by road transport along the Stuart Highway. Larrimah, on the highway and 10 kilometres north of Birdum, is the point of trans-shipment for passengers and goods and is, at present, the effective terminal. A road-rail freight service operates between Adelaide and Darwin via Alice Springs.

Roads

The Stuart Highway, 1535 kilometres long, connects Alice Springs with Darwin and runs via Katherine and Tennant Creek. The Barkly Highway, 648 kilometres long, connects Mount Isa (Queensland) with Tennant Creek and joins the Stuart Highway some 26 kilometres north of Tennant Creek. The sealing of the Victoria Highway from Katherine to the Western Australia border has been completed. This is a distance of 467 kilometres and joins a sealed road to Kununurra and Wyndham in Western Australia. These highways are used for carrying various freights, including cattle, particularly to and from the railheads at Alice Springs, Larrimah and Mount Isa as well as providing access to the meatworks in Wyndham. The routes are used also for overland tourists and travellers from the southern States to Darwin.

The Government is nearing the completion of a three year program of upgrading these highways. This is a continuing annual program of improvement and maintenance of the interstate links.

Development roads serving outback communities in remote areas have also received attention and at 30 June 1973 there were 20,160 kilometres of roads in the Northern Territory. These are made up of 4,538 kilometres sealed, 1,710 kilometres gravel, 4,207 kilometres formed and 9,696 kilometres unformed.

The sealing of 138 kilometres of the Arnhem Highway is expected to be completed by the end of 1974. This includes a bridge over the South Alligator River and will give access to the uranium areas of southern Arnhem Land.

Shipping

Shipping services to Darwin are provided from the eastern States by the Australian National Line and from the west by the Western Australian State Shipping Service. Increasing numbers of oil tankers and overseas general cargo vessels visit Darwin while iron ore carriers continue to load lump and fine ore for Japan. The prawning and fishing industry accounts for a significant portion of the shipping entries into the port. A high level of activity continues as a result of visits by oil rig service vessels.

John Burke Pty. Ltd. operates a shipping service from Brisbane to the Gulf of Carpentaria ports and serves Aboriginal communities as well as the mining centres of Gove and Groote Eylandt. Other shipping services to Groote Eylandt and Gove are in connection with the export of the mining production.

Powered barges also provide services from Darwin to Aboriginal communities and ports along the coast.

In 1970 the Australian National Line replaced vessels calling at Darwin with a new container/bulk ore vessel, the *Darwin Trader*, which carries general cargo to Darwin and backloads manganese ore from Groote Eylandt to Tasmania.

In 1971 the Western Australian State Shipping Service introduced two unit-load vessels and in the first half of 1973 a further two unit-load vessels; these vessels replace all the conventional cargo and passenger/cargo vessels previously in use. In early 1972, the Australian Government offered the Western Australian Government a capital grant of \$2.5 million to assist in the purchase of the fourth unit-load vessel.

Air services

At 30 June 1974, there were 128 aerodromes in the Territory, eight of which are maintained by the Australian Department of Transport, Air Transport Group. The overseas passenger services using Darwin International Airport are Qantas/British Airways (Sydney/Brisbane/Melbourne to London and to Hong Kong); Qantas (Port Moresby to Singapore); TAA on behalf of Transportes Aereos de Timor (Darwin to Bacau) and Merpati Nusantara (Darwin to Kupang). Regular internal services to Darwin, with, in some cases, intermediate stops at Territory centres, are operated by Trans-Australia Airlines and Ansett Airlines (from Adelaide, Sydney, Melbourne and Brisbane), and MacRobertson-Miller Airways Ltd (from Perth). Connair Pty Ltd operate a network of air services throughout the Territory, the company's base being at Alice Springs, in addition, MacRobertson-Miller Airways Ltd operate from Darwin to Gove and Alice Springs. The Northern

Territory Aerial Medical Service has aircraft based at Darwin, Gove and Alice Springs, whilst the Royal Flying Doctor Service operates from Alice Springs. Charter services are available at a number of centres including Darwin, Alice Springs, Katherine, Tennant Creek, Gove and Groote Eylandt.

Posts, telegraph, telephones, radio and television

Postal communication is maintained by road, rail and air transport between major Northern Territory towns and the capital cities of Australia. Large centres receive surface mails by two major road mail services operating via Alice Springs and Mount Isa. The more remote centres are served by the aerial services. Direct mails are despatched to several overseas countries but direct despatches are received only from England.

Trunk telephone links to Darwin extend from Townville via a broadband microwave radio relay system and from Adelaide via carrier systems superimposed on the overland telegraph lines. These systems also carry telegram and telex traffic and serve the towns along the routes. Subscriber trunk dialling facilities from Darwin and Nhulunbuy (Gove Peninsula), were made available during 1974.

High frequency radio telephone exchanges at Katherine and Alice Springs provide connections to the telephone network for some of the remote properties in the Northern Territory. The majority of homesteads on pastoral leases are equipped with radio transceivers operating through the Royal Flying Doctor base at Alice Springs or the A.P.O. Outpost Radio base in Darwin, which provide a message passing and emergency communications service.

Regional national broadcasting stations are situated at Darwin, Alice Springs, Tennant Creek and Katherine and there are commercial broadcasting stations located at Darwin and Alice Springs. Two television stations ABD Channel 6 of the national broadcasting system and NTD Channel 8, a commercial station, operate in Darwin and a national television station ABAD Channel 7 operates in Alice Springs.

EDUCATION

See also the chapter Education.

The Australian Department of Education is responsible for the education administration in the Northern Territory.

This responsibility includes the following:

- (i) Development of curricula for use in all Northern Territory schools; education research; in-service and pre-service education of teachers; development of a teaching resources centre.
- (ii) Special projects covering the range of educational facilities in the Northern Territory, including education programs for Aborigines, migrant education and services for handicapped children.
- (iii) Planning and controlling the capital works program of educational buildings in the Northern Territory.
- (iv) Administration of capital assistance to non-government schools.

Schools in the Northern Territory

There are some 140 schools and pre-schools in the Northern Territory. They cater for approximately 24,000 students. Of these, about 3000 attend private or mission schools. The phase-out of South Australia's education commitments planned for the period 1971-75 is well advanced, including the transfer of responsibility for recruiting and employing teachers.

The curricula and organisational pattern of Northern Territory schools are basically derived from the South Australian pattern, but they are changing. For instance, the secondary schools are developing their own certification and matriculation assessment procedures, an exercise which is complicated by the fact that there is no university or college of advanced education in the Territory.

There are two Schools of the Air in the Northern Territory, one at Alice Springs and one at Katherine. Plans are under way at both centres to relocate the schools in new buildings and to include in each a residential wing to allow students from remote areas to attend their home school for approximately one week each term. The Katherine School of the Air introduced this year an aerial teacher patrol, whereby a teacher possessing a commercial pilot's licence visits the students. In 1974 the Schools assumed responsibility from the South Australian Correspondence School, for correspondence lessons for children living in isolated areas of the Northern Territory.

Another recent development has been the interest in Indonesian and South-East Asian studies in secondary schools in the Northern Territory. A student exchange scheme is operating whereby students from Darwin high schools go to Bali and vice versa.

There is a trend in the Northern Territory towards the amalgamation of the pre-schools and primary schools. For some years the pre-school has operated within the primary school in Aboriginal communities and in recent buildings in the larger centres, the pre-school is built as part of the new school complex.

An intensive building operation is currently under way in the Northern Territory. The most recent complex will be the development of educational facilities for the new uranium townships in the East Alligator area. The educational facilities which are proposed for the Darwin-Newtown area differ from existing Australian education patterns in that they will provide for three stages of school education as against the traditional primary and secondary school arrangement.

One interesting development is the Batchelor Education Village, 100 kilometres south of Darwin. It is an educational complex consisting of a school of about 100 pupils, a camp school for visiting groups from other towns and centres, and a residential in-service conference centre for teachers.

Aboriginal education

The great majority of Northern Territory Aborigines live away from the town centres. Education for Aboriginal children is provided by various means, including mission schools, Government schools on missions, Government schools in or near Aboriginal settlements or in schools on pastoral properties.

In late 1973, as a result of a survey of educational buildings in Aboriginal communities (the Sebac Report) the Government initiated a major five-year program to upgrade buildings and facilities in these communities. However, a recent movement on the part of some Aboriginal family groups to move away from centralised locations to a more traditionally oriented life style has posed new problems as regards providing educational facilities for these decentralised settlements or 'out-stations' and a major project is under way to develop a new form of schooling compatible with the wishes of the communities. One means of providing physical facilities in this situation is the use of mobile 'caravan schools'.

The Government schools for Aboriginal children in out-of-town centres provide tuition at pre-school and primary school level, a number of them have some post-primary classes as well.

For Aboriginal children who wish to proceed to secondary school, there are three residential, transitional colleges. At Yirara, Kormilda and Dhupuma Colleges, Aboriginal students from bush locations are taught the skills of urban living concurrently with the preparation for entry to secondary school programs in the major town centres.

A development which has attracted wide interest and is likely to assume relatively large proportions is a bilingual education program whereby Aboriginal children are taught, in their early years of schooling, in their native tongue. Eleven languages have been analysed sufficiently to allow bilingual programs to be mounted. The extension of bilingual education to the majority of Aboriginal children is hampered by the fact that there are over 130 languages and dialects in use.

The School of Australian Linguistics works closely with the Bilingual Education Section of the Northern Territory Division of the Australian Department of Education.

Adult education is provided in Aboriginal townships and on missions. Most adult education activity takes the form of evening classes conducted by local instructors. Classes include song and dance, folklore, art and craft, English, civics, basic mathematics, hairdressing, mechanics, dress-making, domestic science and manual arts. The Department of Education has developed a variety of short term courses to assist Aboriginal people to overcome problems of social concern, including elections and voting procedures. Intensive courses are conducted in major centres with visiting speakers.

Darwin Community College

The Darwin Community College is presently the only institution which provides post-secondary education in the Northern Territory. The College was opened in 1974 and is an autonomous, multi-purpose institution providing courses in the technical, tertiary and further education fields. In the tertiary field, the College has established courses in social work and teacher education, and also provides tutorial assistance to external students enrolled at the University of Queensland. The College has also established a regional campus at Alice Springs.

Though the Darwin Community College's role is primarily to cater for the Northern Territory's needs, it does have a national significance in that it is the first multi-level institution of its kind in Australia.

Apprenticeship training

Since March 1974, the technical training of apprentices in the Northern Territory has been conducted in the form of block training in all but a few trades. Apprentices from all centres in the Territory attend Darwin Community College for a continuous period of approximately eight weeks each year in first and second years and four weeks in third year. In trades where the number of apprentices does not justify block training, the courses are conducted by correspondence.

The Northern Territory Apprentices Board is a statutory body which functions within the Department of Education. The Chairman and other staff are provided by the Department but other Board members represent employer and employee interests. Arrangements between the Board and the Darwin Community College are co-ordinated by the Department of Education.

Finance

Details of receipts and outlay of the Territory for the years 1968-69 to 1972-73 are shown in the table following. In this table the receipts and outlay of the Northern Territory have been classified into a National Accounts form. The table covers transactions relating to the Northern Territory in the Australian Government Consolidated Revenue Fund and the following trust funds: Aborigines Benefits, Northern Territory Government Settlements Canteens, Northern Territory Housing Commission, Northern Territory Housing Loans, Northern Territory Transport and Northern Territory expenditure from the Aboriginal Advancement Trust Account. Details of the financial transactions of the following Northern Territory semi-government authorities are also included: the Northern Territory Port Authority and the Northern Territory Housing Commission (from 1969-70). Details of the financial transactions of the Darwin City Council are also incorporated in the table. Revenue derived by the Australian Government from income taxes, customs duties, etc., levied in the Northern Territory and expenditure by the Australian Government in the Northern Territory on such items as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

NORTHERN TERRITORY: RECEIPTS AND OUTLAY (\$'000)

	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Taxation—					
Rates on land	450	547	683	950	1,014
Stamp duties	86	94	176	158	184
Motor registration	518	586	646	784	816
Other taxes, fees, fines, etc.	599	773	955	1,230	1,302
Interest, rent, etc.	980	1,379	1,639	1,486	1,490
Public enterprises income	2,175	2,481	3,505	3,928	3,754
Net sale of local authority and public corporation securities	633	276	399	289	157
Other receipts ^(a)	—21	347	1,625	63	1,027
Net charge to Commonwealth budget	57,836	74,032	87,851	111,535	124,388
Total receipts	63,256	80,515	97,479	120,423	134,132
OUTLAY					
Final consumption expenditure					
Law, order and public safety	1,935	2,331	3,326	3,607	5,440
Education	4,639	5,628	7,812	9,491	12,874
Health	5,536	8,207	8,028	8,478	10,570
Social security and welfare	6,271	7,719	9,417	12,069	14,673
Other	11,659	12,508	13,416	17,116	18,794
Gross fixed capital expenditure on new assets and stocks—					
Education	1,709	5,588	5,126	7,671	12,035
Roads	11,053	11,269	11,908	11,636	14,627
Housing and community amenities	6,845	7,884	12,184	16,593	17,876
Health	1,167	1,868	2,089	9,457	5,272
Social security and welfare	739	478	455	348	623
Other	8,414	12,454	16,193	16,839	15,384
Net purchase of existing assets ^(b)	—358	—590	45	280	..
Interest paid	113	145	272	282	236
Cash benefits	156	174	204	201	202
Subsidies	337	648	460	620	505
Net advances—					
Housing and community amenities	2,164	3,086	4,608	3,749	1,162
Other	13	—101	—95	83	68
Grants for private capital purposes	864	1,219	2,031	1,903	3,791
Total outlay	63,256	80,515	97,479	120,423	134,132

^(a) Includes movements in cash, investments, etc. ^(b) Minus sign.(—) denotes excess of receipts (from sales) over expenditure on, or purchases of, existing assets, including housing.

THE AUSTRALIAN CAPITAL TERRITORY

General description

The Constitution provides that the Seat of Government of the Commonwealth of Australia shall be in the State of New South Wales but distant not less than 100 miles (160 kilometres) from Sydney. After a number of alternative sites were considered, an area of 2,359 square kilometres lying approximately 320 kilometres south-west of Sydney was transferred to the Commonwealth as from 1 January 1911. A further 73 square kilometres at Jervis Bay were transferred as from 4 September 1915 to serve as a port for the Territory.

The primary responsibility for administering the Australian Capital Territory lies with the Department of the Capital Territory, whose functions include housing, public transport, and municipal services. Education, public health, justice, police, and the provision of basic physical services, including water supply, sewerage and roads, are the responsibility of the Departments of Education, Health, Attorney-General's, and Housing and Construction. The National Capital Development Commission has the responsibility for the planning and development of the Canberra city area.

The Australian Capital Territory Advisory Council was established in 1930. It had eight elected members and a representative from each of the Departments of the Capital Territory, Housing and Construction, and Health, and the National Capital Development Commission, as well as an observer from the Department of Education. The Council advised the Minister for the Capital Territory on matters affecting the Australian Capital Territory. Ordinances were submitted in draft form to the Council for advice and comment before being implemented.

The Council was replaced in 1974 by the A.C.T. Legislative Assembly. This body consists of 18 elected members—9 from each of the electoral divisions of Canberra and Fraser. There are no nominated members in the Assembly. In the immediate future the role of the Assembly will be unchanged from that of the Council but it is expected that it will gradually receive some legislative responsibility and eventually develop as a self-government body for the A.C.T.

At the census of 30 June 1971 the population of the Australian Capital Territory was 144,063, made up of 140,864 in the urban Canberra (excluding Queanbeyan) area and 3,199 in rural areas (including Jervis Bay). The estimated population of the Territory at 30 June 1973 was 86,200 males and 82,200 females, 168,400 persons. *See also* the chapters Population and Vital Statistics.

National Capital Development Commission

The National Capital Development Commission Act 1957–1960 provides for a Commission to undertake and carry out the planning, development and construction of the City of Canberra as the National Capital of Australia. The year 1972–73 was the fifteenth year of the Commission's operations. Construction work was carried out by means of agency arrangements with the Department of Housing and Construction and private consultants. Details of expenditure by the Commission in recent years are included in the table on page 1050. Total expenditure in 1972–73 was \$74.4 million comprising: land development and services \$15.8 million; water, sewerage and stormwater, services and headworks \$6.7 million; housing, flats and other accommodation \$10.8 million; educational facilities \$6.5 million; roads, bridges and traffic control \$6.5 million; city works and associated facilities \$5.8 million; Australian Government offices \$15.9 million; national works \$1.4 million; others \$5.0 million.

The following major works were completed during the 1972–73 financial year by the Commission: Coulter Drive—from Belconnen Way to Ross Smith Crescent, Scullin; Weston Park development stage 3; Cotter Reserve development stage 2; Hindmarsh Drive duplication—Phillip to O'Malley; Campbell Park Offices phase 1; Belconnen High School stage 2; Primary Schools at Duffy, Holt, Melba and Weetangera; Campbell High School library; Civil Defence depot at Woden; Yarra Glen roundabout; Civic pedestrian plaza; Weston Creek—Coppins Crossing sludge main; Gungahlin 900 mm trunk sewer main; Narrabundah High School gymnasium and extensions; Upper Red Hill pumping station; Fyshwick eastern extensions—roads and hydraulic services; augmentation of trunk main from Mount Stromlo to Belconnen; land servicing in Evatt, Melba and Flynn; realignment and lining of Sullivan's Creek—Lyneham.

Major works under construction at the commencement of the 1973–74 financial year; roads and services to Kambah, Chapman, Hawker, Charnwood, Flynn, Macgregor, Stirling, Crace and Spence; Tuggeranong interceptor sewer; Molonglo Valley interceptor sewer; Lower Molonglo Water Quality Control Centre—equipment; Botany Building in the Botanic Gardens; food school at the

Canberra Technical College; Mount Stromlo Reservoir; Belconnen Reservoir No. 5; Weston Creek group centre—roads and services; Kippax group centre—roads and services; Holder High School; Ginninderra High School; Canberra School of Music; Primary Schools at Macgregor, Flynn and Evatt; Horticultural Centre—Weston; Lake Ginninderra embankment and associated works; Hindmarsh Drive duplication; Ginninderra Drive; Tuggeranong Parkway; Australian National Gallery; Australian National Library extensions; Cameron Offices; Trade Group Offices; Parliament House extensions.

Works and services

Housing

Until the period following the 1939–45 War most houses and flats in the Australian Capital Territory were built and rented by the then Department of the Interior. More recently, an increasing number of houses and flats have been built by private enterprise, and as a result the proportion of houses and flats in the Australian Capital Territory occupied by tenants of the Department of the Capital Territory (formerly the Department of the Interior) has fallen from 79.7 per cent of total occupied houses and flats in 1954 to 58.3 per cent in 1961, 38.8 per cent in 1966 and 28.1 per cent in 1971. Although the bulk of rented accommodation is provided by public authorities, and this situation will continue thus in the foreseeable future, there has been a considerable increase in the proportion of home ownership in the Australian Capital Territory since 1954. The proportion of houses and flats owned or being purchased by instalments has risen from 19.5 per cent in 1954 to 29.0 per cent in 1961, 45.6 per cent in 1966 and 51.8 per cent in 1971. Home building activity in the Woden Valley and Weston Creek, south-west of the former city area and Belconnen, north-west of the former city area, has continued to expand, and at June 1971 there were 11,280 occupied dwellings in the Woden Valley and Weston Creek area, and 5,145 occupied dwellings in the Belconnen area. *See also* the chapter Housing and Building.

Municipal services

Since its establishment, Canberra has been developed as a garden city. The development of new areas of parkland and the maintenance of existing tree and lawn areas is the responsibility of the City Parks Administration of the Department of the Capital Territory. During the four years ended 30 June 1973, some 1.7 million trees and shrubs have been propagated by the Department for 'planting out' in the city. The area of parks, gardens and sports grounds under maintenance at 30 June 1973 was about 4,500 hectares. Municipal services are also provided by the Department of the Capital Territory.

The water supply, sewerage and drainage systems in the Australian Capital Territory are under the control of the Department of Housing and Construction.

At 30 June 1973, 44,941 meters were connected to the city water supply, drawn through 24 reservoir installations, 3 of which comprises a pair of reservoirs, from 3 storages on the Cotter River with a total capacity of nearly 91,218 megalitres. In 1972–73, some 41,919 megalitres of water were consumed in Canberra serving a population of 185,000, and in addition the system supplied 2,591 megalitres to Queanbeyan, New South Wales, to an estimated population of 11,900. Treatment works at Weston Creek, Belconnen and Fyshwick dispose of Canberra's sewage. At 30 June 1973, 1,425 kilometres of sewers, 14 kilometres of rising sewerage mains and 1,492 kilometres of storm-water drains and a total length of 1,518 kilometres of water lines were laid.

Production

See also the chapters dealing with particular subjects.

Lands

Reference has been made in earlier issues of the Year Book to the general conditions of land tenure in the Territory and to the area of alienated and leased land, and the chapter Rural Industry of this issue contains statistical information on the subjects. (*See also* § 1. Canberra: Fifty Years of Development, page 123 of Year Book No. 49.)

Under the *Seat of Government (Administration) Act* 1910–1972, no Crown lands in the Territory may be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act. In general, leases of land in the city area are granted under the *City Area Leases Ordinance* 1936–1974. In special circumstances land may be leased for purposes other than business or residential under the *Leases (Special Purposes) Ordinance* 1925–1970 and for

church purposes under the *Church Lands Leases Ordinance* 1924–1966. As considerable areas of Government owned land in the Territory are not immediately required in connection with the establishment of the City, they have been leased for agricultural or grazing purposes under the *Leases Ordinance* 1918–1966 for terms consistent with the expected growth of Canberra. Some lands in the Territory, in areas generally remote from the City, remain in private ownership under freehold title. A program of progressive acquisition of this land is being implemented.

The Australian Territory at Jervis Bay, comprising about 73 square kilometres, was acquired from New South Wales for the possible provision of port facilities in connection with the Australian Capital Territory. A portion of the area is occupied by the Royal Australian Naval College (H.M.A.S. *Creswell*) and a Royal Australian Navy airfield. Several blocks fronting Sussex Inlet have been leased for guest houses and holiday camps, etc., under the *Leases Ordinance* 1918–1966, and an area of land in the Murray's Beach area has been set aside for possible use as an atomic power station under the control of the Australian Atomic Energy Commission. Apart from picnic and camping areas, experimental planting, afforestation and soil conservation activities, the remainder of the area is being maintained in its natural state.

Forestry

Forestry operations in the Australian Capital Territory began in 1915 with the planting of pines on the denuded slopes of Mount Stromlo to arrest soil erosion and improve the visual quality of the landscape. In 1926 a program for development of commercial forests was approved following a comprehensive review of the Territory's potential for forest development. Major reviews of this program were made in 1932, 1954 and 1967, always however retaining the basic policy of systematic conservation and development. Much of the better native forest has been placed under management and forestry operations including fire protection treatment have been extended to some 44,500 hectares of natural forest in the Cotter Catchment and adjacent areas. The more productive stands in these areas were harvested extensively to provide timber for Canberra's post-war expansion and were subsequently treated to promote regeneration and protect the quality of water harvested.

The policy of forest management in the Australian Capital Territory has been formulated to cater not only for commercial timber production but also to provide recreation facilities and an attractive visual environment for the national capital and to protect the water supply. These policies can be broadly summarised as follows.

- (a) Manage and develop hardwood forest areas in the Australian Capital Territory and Jervis Bay for production of timber and arrange sales of all forest produce.
- (b) Initiate and maintain a variety of growth and environmental experiments to produce information for management decisions.
- (c) Develop and implement viable multiple use policies for forest areas with particular emphasis on recreation potential and facilities, quality of water harvest in catchments and conservation of the environment.

The forest authority is charged with the management of some 60,700 hectares of land in the Australian Capital Territory. Of this some 44,500 hectares carry native forest or woodland. As at 31 December 1973 the total area of coniferous plantations in the Australian Capital Territory and Jervis Bay was 13,800 hectares. Of 322 hectares at Jervis Bay the majority consists of *Pinus radiata* (Monterey Pine) and *Pinus elliottii* (Slash Pine). The plantations in the Australian Capital Territory consist mainly of *Pinus radiata* and *Pinus ponderosa* (Yellow Pine). Total area of *Pinus radiata* was 12,780 hectares.

In 1973–74 there was no significant commercial production of hardwood timber from the Australian Capital Territory and Jervis Bay. Currently hardwood logging is restricted to incidental production from silvicultural operations. However, the volume of softwood cut increased to 80,200 cubic metres (69,700 cubic metres in 1972–73). The total value of this unprocessed timber unloaded at the mill (milldoor value) was \$1,544,000. This returned \$840,000 in royalties (value of unprocessed timber at stump).

In 1972, Australia's first plantation-based integrated timber-converting complex commenced production, processing timber cut in Australian Capital Territory plantations. It produces structural plywood, sawn, dressed and kiln dried lumber and wood chips. Consumption of logs by this complex is scheduled to reach 118,900 cubic metres per annum by 1975.

Agricultural, pastoral and secondary industries

During 1972–73 the production of the more important items of the agricultural and pastoral industry was: wheat 359 tonnes; wool 555,000 kg; whole milk 2,672,000 litres; meat (carcass weight), fresh 7,835 tonnes. The numbers of livestock depastured at 31 March 1973 were: cattle 19,456; sheep 142,968; pigs 112.

As in the Northern Territory, the secondary industries established in the Australian Capital Territory are largely the service industries associated with the growth of the Territory.

The following table shows preliminary results of the Manufacturing Censuses taken in respect of the years ended 30 June 1972 and 1973.

**AUSTRALIAN CAPITAL TERRITORY
MANUFACTURING ESTABLISHMENTS**

		1971-72	1972-73
Establishments operating during year	No.	135	132
Persons employed(a)	No.	3,333	3,316
Wages and salaries	\$m	14.7	16.5
Turnover	\$m	50.1	60.5
Opening stocks at 30 June	\$m	3.7	4.9
Closing stocks at 30 June	\$m	4.5	5.6
Purchases, transfers in and selected expenses	\$m	24.5	31.4
Value added(b)	\$m	26.4	29.9

(a) Average over whole year. Includes working proprietors. (b) Sales, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Transport and communication

Canberra is connected with the railway system of New South Wales at Queanbeyan by a line 8 kilometres long. This line was opened for goods traffic on 25 May 1914 and for passenger traffic on 15 October 1923. Direct or linking services operate between Canberra and Sydney and Canberra and Melbourne. Two airlines provide many services daily each way on the Sydney-Canberra-Melbourne route. Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia. The total length of roads in the Territory at 30 June 1973 was: bitumen and concrete, 1,283 kilometres; gravel, 385 kilometres; other formed roads, 42 kilometres; total, 1,710 kilometres. There are three radio broadcasting stations in the Territory, 2CY and 2CN of the national broadcasting system and 2CA, a commercial station, and two television stations, ABC Channel 3 of the national broadcasting system and CTC Channel 7, a commercial station.

Social

See also the chapters Education; Public Health; and Law, Order and Public Safety.

Schools

The Education Ordinance 1937-1971 provides for the compulsory attendance at school of children between the ages of six and fifteen years. At the beginning of 1974 the Australian Department of Education assumed complete responsibility for the operation of Australian Capital Territory government schools taking over the areas of staff and curriculum previously carried out by the New South Wales Department of Education. The actual running of the schools is being controlled by an Interim Australian Capital Territory Schools Authority, representative of teachers, parents and the community, with the Department retaining legal responsibility until the Authority attains permanent status. There were approximately 2,000 teachers in the Australian Capital Territory in 1974, an increase of some 400 teachers over 1973. About 200 of the total number of teachers are members of the New South Wales teaching service.

At 1 August 1974 there were 14 government secondary schools in the Australian Capital Territory providing courses to the Higher School Certificate level. Pupils enrolled numbered 11,676. Forty-six schools provided courses at infants and primary levels, 3 of these being in rural districts and 1 in the Jervis Bay area. The number of pupils enrolled in primary grades of government schools at 1 August 1974 was 20,975.

A school for physically handicapped children is located at Turner Infants School. Special units for deaf children are situated at Ainslie and Mawson Primary Schools and at Telopea Park High School. Classes for mildly intellectually handicapped children are provided at Ainslie, Mawson, Narrabundah, Scullin and Waramanga Primary Schools, Lyneham High School and the Woden School. Three special schools and 2 pre-schools serve the needs of moderately and some severely intellectually handicapped children. Aphasic children are catered for in 2 special classes at Forrest Primary School, and 2 reading centres operate at Yarralumla and North Ainslie Primary Schools. Special English classes are available at 5 primary schools and 5 high schools. Educational guidance services are provided by the Education Clinic and through counselling staff.

The 62 pre-schools including 2 in the Jervis Bay area and a mobile unit which visits outlying areas of the Australian Capital Territory provide pre-school facilities for approximately 4,000 children between the ages of 3 and 5 years. New pre-schools were opened in 1974 at Macgregor, Flynn and Evatt. Additional facilities provided at Waramanga, Rivett, Weetangera, Page and Weston enabled these pre-schools to enrol up to 120 children. Four new primary and pre-schools will be opened in 1975 at Charnwood, Chapman, Village Creek and Mount Neighbour. Holder High School will open in 1975.

At February 1974 there were 23 non-government schools in Canberra including 8 secondary schools which provide courses leading to the Higher School Certificate. At the same date 6,766 pupils were enrolled in the primary grades of non-government schools and 5,031 pupils were enrolled in the secondary forms of non-government schools.

Other educational institutions

The Canberra Technical College which is run jointly by the Australian Department of Education and the New South Wales Department of Technical Education follows generally the pattern of technical education in New South Wales. It provides trade, post-trade, certificate, and craft and leisure-type courses at the main campus, and several annexes. In 1974 the Technical College provided instruction in over 150 courses in 21 different schools of study. Student enrolments in April 1974 were in excess of 10,000.

The Canberra School of Music provides a diploma course and individual study in a range of instruments and voice. At September 1974 enrolments totalled 516. A new school to accommodate between 1,000 and 1,200 students is at present under construction.

The Canberra College of Advanced Education was established following a decision by the Australian Government in October 1966 to accept the recommendations of a committee of inquiry into the need for a college of advanced education in the Australian Capital Territory. The College is organised into schools. In 1974 courses were offered in the School of Administrative Studies, the School of Applied Science, the School of Liberal Studies, the School of Teacher Education, the School of Information Sciences and the School of Environmental Design. A Master of Education course was offered in 1974; a Master of Applied Science course will be offered in 1976.

The Australian National University consists of a School of General Studies and an Institute of Advanced Studies.

The School of General Studies is composed of Faculties of Arts, Asian Studies, Economics, Law and Science. It carries out both undergraduate and post-graduate training and research.

The Institute of Advanced Studies is a centre for research and training in research. It includes the John Curtin School of Medical Research and Research Schools of Physical Sciences, Social Sciences, Pacific Studies, Chemistry, Biological Sciences and Earth Sciences.

The University has established the following centres: Centre for Resource and Environmental Studies, Humanities Research Centre, North Australia Research Unit (based in Darwin) and Survey Research Centre.

Centre for Continuing Education

The Australian National University runs a Centre for Continuing Education which is intended to foster the 'learning society' by enriching the contacts between the university and the community to their mutual advantage. The Centre offers a wide range of courses in the natural and social sciences and the humanities. The Canberra Evening College provides courses leading to the Higher School Certificate, the School Certificate and the Public Service qualifying examinations. The College also offers a wide variety of craft and cultural courses. In addition to Certificate Trade and Post-trade courses the Canberra Technical College offers classes in various forms of arts and crafts, including home crafts, shorthand and typing and several unit courses in Home Science.

Adult migrant education

Free day and evening classes in English are held for adult migrants at primary and secondary schools, health centres, private hotels and other locations. Home tutor kits are available for instruction in private homes. These classes aim principally to assist migrants with general communication and their assimilation into the community.

Accelerated courses in English are available on a full-time basis for migrants selected by the Department of Labor and Immigration as requiring a higher degree of English proficiency in their employment.

Apprenticeship training

At 30 June 1974, 1,473 apprentices were in training in the 72 declared apprenticeship trades in the Australian Capital Territory. Apprentices were employed by 664 approved employers of which 188 were new employers. During 1973-74, there were 920 new applications for apprenticeship. 590 new indentures were registered, representing an increase of 7.3 per cent in new indentures on 1972-73 totals. In this period 244 apprenticeships were completed and 202 cancelled. Trade courses at the Canberra Technical College are supplemented, where required, by remedial classes in mathematics and English.

Health

Canberra Hospital and Woden Valley Hospital serve the population of Canberra and the surrounding region. At 30 June 1973, Canberra Hospital had 699 beds, a visiting medical staff of 218, a salaried medical staff of 43 and a nursing staff of 922. Woden Valley Hospital, the second public hospital in Canberra, opened on 1 May 1973 with ward accommodation for 36 patients and a total of 174 staff employed. The hospital will become fully operational in stages, eventually having 600 beds. By June 1973 it had 72 beds available.

Three health centres opened in Canberra in the second half of 1973. A centre at Melba opened in July, one at Scullin opened in August and an interim health centre opened at Narrabundah in October the latter in temporary premises pending the construction of suitable accommodation.

The health centres offer primary care, provided by a team which includes general practitioners, nurses, social workers and a physiotherapist.

Law, order and public safety

The Australian Capital Territory has a Supreme Court and a Court of Petty Sessions. The Territory is policed by the Australian Capital Territory Police Force which at 21 August 1974, had an authorised numerical strength of 587 officers and men of various ranks. The distribution is Commissioner (1), Deputy Commissioner (1), Superintendent (1), Senior Inspector (1), Inspector First Class (6), Inspector Second Class (11), Sergeant First Class (17), Sergeant Second Class (10), Sergeant Third Class (62), Senior Constable (11), Constable First Class (77) and Constable (389). The Force is divided into two General Duties Divisions, a Criminal Investigation Division, a Management Services Division and a Recruitment and Training Division. These in turn are divided into a number of Sections and Squads including Scientific, Breath Analysis, Fraud, Licensing, Legal, Water Police, Accident Investigation, Women Police, Embassy and Parliament House Security, Jervis Bay, Police Boys' Club, Rural Patrol, Search and Rescue, Diving, Armed Offenders, Drugs, Emergency Mobile Communication Centre, Safety Education, Process Serving, Mobile Traffic, Motor Cyclists, Driver Training, Amphometer, Adjudication, Motor Squad, Fingerprints, Special Patrol and Gazette. At present the Force operates from Police Stations at Civic Centre (Headquarters), Woden Town Centre and Jervis Bay with Water Police Headquarters at Yarralumla Bay. A Station will be established at Belconnen Town Centre in 1975.

Finance

In the following table identifiable receipts and outlay relating to the Australian Capital Territory have been classified in a National Accounts form. The table covers transactions of the Australian Government in respect of the Australian Capital Territory in the Consolidated Revenue Fund and the following trust funds: Australian Capital Territory Forestry, Australian Capital Territory Housing, Australian Capital Territory Transport and Australian Capital Territory Suspende. In addition, details of the financial transactions of the following public corporations are also covered: Australian Capital Territory Electricity Authority, Commonwealth Brickworks, National Capital Development Commission, the Canberra Theatre Trust, and the Canberra College of Advanced Education. Revenue derived by the Australian Government from income taxes, sales tax, etc.

levied in the Australian Capital Territory and outlay on items of a national character such as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND OUTLAY
(**\$'000**)

	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Taxation—					
Rates on land	619	749	1,383	4,362	5,166
Liquor	259	287	340	387	458
Motor registration	748	830	937	1,090	1,236
Stamp duties(a)	382	1,969	2,475	2,561	3,589
Other taxes, fees, fines, etc.	282	243	278	323	689
Interest, rent, etc.	6,190	7,479	7,208	7,689	11,904
Income from public enterprises	1,673	2,026	1,883	2,106	1,616
Net sale of public corporation securities	260	588	588	432	—38
Other receipts	444	774	2,342	730	2,045
Net charge to Australian Government budget	64,713	70,370	84,153	94,608	90,964
Total receipts	75,571	85,315	101,587	114,289	117,628
OUTLAY					
Final consumption expenditure—					
Law, order and public safety	2,684	3,158	4,186	5,696	6,967
Education	7,731	9,366	13,082	15,870	21,038
Health, social security and welfare	3,959	4,643	6,538	7,730	8,840
Other	9,796	14,087	18,940	17,360	27,263
Gross fixed capital expenditure on new assets and stocks—					
Education	5,400	8,063	8,681	9,952	9,802
Recreation and related cultural services	3,037	4,341	1,953	1,171	1,309
Health, social security and welfare	513	1,424	5,404	9,198	8,419
Protection of the environment	1,351	1,408	1,064	2,545	4,889
Roads	6,798	6,386	7,894	5,511	7,775
Community and regional development	12,033	11,010	13,016	16,946	19,312
Electricity, gas and water	3,912	3,971	3,647	3,945	3,415
Housing	5,407	1,250	—1,058	—6,151	—8,392
Other	8,657	7,872	13,776	12,370	17,145
Net purchase of existing assets	—7,218	—7,692	—15,465	—15,500	—38,430
Interest paid	426	446	498	558	578
Cash benefits	62	67	62	60	64
Net advances for housing	10,265	14,459	18,435	26,053	26,601
Grants for private capital purposes	757	1,055	936	976	1,032
Total outlay	75,571	85,315	101,587	114,289	117,628

(a) Estimated for years prior to 1969-70.

NORFOLK ISLAND

General description

Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 03' S., longitude 167° 57' E. approximately. Its total area is approximately 36 square kilometres, the island being about 8 kilometres long and 5 kilometres wide. It is 1,677 kilometres from Sydney and 1,069 kilometres from Auckland. The length of the coast line is 32 kilometres, and its form that of an irregular ellipse. Except for a portion on the south side and the landing place at Cascade on the northern side, almost inaccessible cliffs rise from the water's edge. The climate is equable, the average daily maximum temperature varying between 18°C and 26°C. The average annual rainfall is 1,372 millimetres. The resident population is about 1,500.

The island served as a penal station from 1788 to 1813 and from 1825 to 1855. In 1856, 194 descendants of the *Bounty* mutineers were transferred there from Pitcairn Island.

Administration

In 1856 the island was created a distinct and separate settlement under the jurisdiction of the Governor of New South Wales. In 1897 it was made a dependency under the Governor of that Colony, and finally, by the passage of the *Norfolk Island Act* 1913, became a Territory of Australia. It is controlled by the Minister for the Capital Territory through an Administrator. The Norfolk Island Council was established pursuant to the *Norfolk Island Act* 1957–1973 and is constituted in accordance with the provisions of the *Norfolk Island Council Ordinance* 1960–1970. The Council may consider and tender advice to the Administrator on any matter affecting the peace, order and good government of Norfolk Island, and must be consulted on certain legislative and financial matters. The Council comprises the Administrator as *ex officio* chairman and voting member and eight members elected biennially.

Economic activity

The major economic activity of the island is tourism. Primary production is not fully adequate for local needs and foodstuffs are imported from New Zealand and Australia, mainly for the tourist trade.

Primary industries. The soil on the island is particularly fertile, the climate equable and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation presents trading difficulties, and there is only very limited production of export crops.

Fish abound off the island. In the past a number of ventures have been formed to exploit this resource, but they have been short-lived, mainly because of the lack of a sheltered harbour. A modern whaling station was started on the island in 1955, and production commenced during the second half of 1956. Owing to a marked scarcity of whales after 1961, however, the station was closed down.

An active forestry program is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts.

Tourists. Regular sea and air services to the island are available for those who seek a quiet holiday in surroundings of beauty and historic interest. There are at present, apart from flats and unlicensed guest houses, hotels and licensed guest houses, and further accommodation is being built to meet the steadily increasing number of visitors.

Employment. A large proportion of the population derives its income from various aspects of the tourist industry including the operation of hotels and duty-free stores. The Australian Government provides services through staff from the Departments of Transport and Science (Bureau of Meteorology) and teachers are seconded by the N.S.W. State Education Department. A number of clerical and other positions are available to islanders in the Norfolk Island Administration. Very few people rely for their income entirely on agricultural pursuits.

Trade, transport and communication

Imports to Norfolk Island since the 1939–45 War have risen from \$65,000 in 1945–46 to \$4.7 million in 1972–73. The major proportion (\$1.9 million) in 1972–73 came from Australia and the Pacific Islands while New Zealand supplied \$1.3 million. Exports in 1972–73 amounted to \$0.4 million. Exports to Australia and the Pacific Islands, the principal market, amounted to \$0.3 million, while exports to New Zealand amounted to \$95,000. No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are produced or manufactured in Norfolk Island and shipped direct to Australia, and not goods which if manufactured or produced in Australia would be subject to excise duty.

Two shipping services to the island operate at approximately four week intervals from Sydney via Lord Howe Island and Norfolk Island to Noumea and Vila, thence to Sydney. A link with New Zealand is maintained by a service operating from Auckland at approximately 26-day intervals and calling at Norfolk, Noumea, Brisbane, Lyttleton and Auckland.

A passenger and air freight service between Sydney and Norfolk Island is operated by Qantas Airways Ltd three times a week, and more frequently in peak periods. The service extends to New Zealand weekly under charter to Air New Zealand Ltd.

There are approximately 80 kilometres of motor road on the island. A substantial section of the population possesses private motor cars. Hire cars, taxis and scooters are available.

The island has an automatic telephone service and a radio telephone link with Sydney. A local broadcasting service is operated by the Administration.

Education

Education is free and compulsory between the ages of 6 and 15 years. The school, which is conducted for the Administration by the New South Wales Department of Education, conforms to the Australian standard of public education, ranging from kindergarten to the School Certificate (Fourth Form) examination. The number of scholars enrolled at 3 May 1974 was 313.

Bursaries are available for pupils who wish to attend a mainland school either to continue their studies beyond the School Certificate level or undertake high school courses not available on the Island. Trainee scholarships are available for pupils who have left school and wish to undertake apprenticeship or similar training away from the Island.

Judiciary

The judicial system of Norfolk Island consists of a Supreme Court and a Court of Petty Sessions. The Supreme Court is the highest judicial authority in the Territory and is a superior court of record with original criminal and civil jurisdiction. The jurisdiction of this Court is exercised by one judge sitting in Court or, to the extent and in the cases provided by or under ordinance, sitting in Chambers. The jurisdiction of the Court of Petty Sessions is exercised by the Chief Magistrate or any three magistrates other than the Chief Magistrate.

Finance

Since Norfolk Island became a territory of the Australian Government in 1913 the revenue of the territory has been supplemented by annual grants from the Australian Government as internal revenue alone has not been sufficient to meet the cost of public works and services. The principal items of revenue and expenditure in recent years were as follows.

NORFOLK ISLAND: REVENUE AND EXPENDITURE (\$'000)

	1969-70	1970-71	1971-72	1972-73	1973-74
REVENUE					
Government grant	66	66	66	120	120
Customs duty	116	146	158	180	319
Liquor profit	68	69	82	107	121
Company fees	43	51	89	164	145
Sale of stamps	219	234	226	107	175
Vehicle registration and licence fees	16	19	22	23	42
Government advance (repayable) . . . . .	..	..	..	90	..
All other	71	86	106	83	115
Total revenue	599	671	749	874	1,037
EXPENDITURE					
Administration	137	166	183	204	233
Education services	86	99	44	126	165
Health and welfare services	53	64	79	91	85
Repairs and maintenance	87	136	176	132	149
Postal services	57	122	75	58	108
Capital works and services	120	142	154	197	63
Miscellaneous services	28	31	30	30	32
Total expenditure	568	760	741	838	835

PAPUA NEW GUINEA

As indicated on page 1037, the date for full independence for Papua New Guinea has not been fixed. Pending this event the usual section on Papua New Guinea has been included in this chapter.

Greater detail on the subjects dealt with in this section is available in the Papua New Guinea Administration Annual Report. The sections on pages 1060-66 have been prepared by the Director of the Australian Bureau of Meteorology.

General description

Papua New Guinea comprises the Australian Territory of Papua and the United Nations Trust Territory of New Guinea. The total area of 461,515 square kilometres lies in the equatorial zone between the equator and 12°S latitude and longitudes 141°E and 160°E.

Papua lies wholly within the tropics. The northernmost point touches 5°S latitude; its southernmost portion, comprising Tagula and Rossel Islands, lies between 11°S and 12°S latitude. It is separated from Australia by Torres Strait. The total area is 222,913 square kilometres of which 215,728 square kilometres are on the mainland and 7,184 square kilometres on the islands of the Trobriand, Woodlark, D'Entrecasteaux, and Louisiade groups.

The Trust Territory of New Guinea extends almost from the equator to latitude 8°S, a distance of almost 950 kilometres, and from longitude 141°E to 160°E, a distance of about 1,900 kilometres. The total area is 238,602 square kilometres, of which 178,887 square kilometres are on the mainland and 59,715 square kilometres on the islands, including the two northernmost islands of the Solomon Islands, Buka and Bougainville, and the Bismark Archipelago.

Climate

The climate, particularly the rainfall, over so wide an area as Papua New Guinea, with its numerous islands and varying elevations, presents many variations. Generally speaking, the climate is hot and humid, except in the highlands where days are mild to warm and nights are cool. Mean temperatures vary little throughout the year, and there are no winter and summer seasons comparable to those of higher latitude.

The predominant seasonal feature is the regular alternation between two major air-streams, the south-east trade winds and north-west monsoon. The 'south-east' season prevails approximately from May to October, and the 'north-west' season persists for a shorter period from about December to early April. Two short spells of calm weather occur between these two seasons.

Rainfall

There are great spatial variations in the amount of rainfall received over Papua New Guinea. The variations depend mainly upon the direction and speed of the air streams. These streams are moist, requiring only a small amount of lifting for condensation of water vapour to occur. Topography therefore has a dominating influence on the rainfall distribution.

Average annual rainfall

The table on page 1062 shows the average annual and monthly rainfall for selected stations. It may be seen that the spatial distribution of average annual rainfall varies greatly, being dependent mainly on topography in relation to prevailing winds. The annual averages vary from 1,200 mm at Port Moresby (township) to 5,870 mm at Kikori at the head of the Gulf of Papua. There are few rainfall observing stations above 2,000 metres, so that rainfall above that height must generally be estimated. The map on page 1066 shows the rainfall distribution over the region for the year 1972.

Seasonal distribution of rainfall

Places in Papua such as Port Moresby, where the south-east trade wind does not blow directly onshore, have a dry season during May-October. Places such as Kikori have heavier rainfall during May-October because of the onshore south-east winds. In New Guinea, where conditions are more equatorial, rainfall occurs throughout the year, but is heaviest in the November-April period at most places.

Variability of rainfall

There are marked variations from year to year in annual rainfall totals. At Port Moresby (township), for example, in forty-two years of record the annual rainfall has varied from 1,830 mm to 580 mm; at Daru in fifty-four years of record the annual rainfall has varied from 3,960 mm to 1,170 mm; and at Madang in forty years of record the variation has been from 4,570 mm to 2,340 mm. The table on page 1063 shows the annual rainfall at Port Moresby and Lae for the years 1946 to 1972 inclusive.

Heavy rainfalls

Highest twenty-four hour rainfall registrations have included 549 mm at Pondo Plantation in New Britain and 447 mm at Cape Nelson on the east coast of the main island. Twenty-four hour falls greater than 400 mm have been recorded at a number of other stations in the Papua New Guinea region. The highest twenty-four hour fall recorded in Australia was 907 mm at Crohamhurst, Queensland. All these registrations were for the restricted twenty-four hours period from 9 a.m. to 9 a.m. Higher falls, possibly approaching 700 mm, have probably occurred in Papua New Guinea in unrestricted periods of twenty-four consecutive hours.

Temperature

Although the region generally has no summer and winter seasons, it has a wide range in temperature because of elevation differences. For each month the mean daily maximum temperature decreases by about 1°C and the mean daily minimum temperature by about 2°C for each 300 metres increase in elevation up to 1,500 metres.

A table on page 1063 shows temperature and humidity data for five lowland and two highland stations. Mount Hagen, elevation 1,630 metres, is the highest station for which temperature data are available. However, both day and night temperatures continue to decrease with elevation above this level.

Average seasonal temperature distribution

In the lowland areas there is a difference in temperature pattern between the areas south of the highlands and those to the north. In the south there is a tendency for temperatures to be lower in the May–October period than in the November–April period (e.g. Samarai). In the north there is little difference throughout the year (e.g. Madang). In the highlands, temperatures are appreciably lower than in the lowlands and are slightly lower in the middle of the year than they are at the beginning of the year (e.g. Goroka). The nights are cold in the highlands throughout the year; the mean daily minimum at Mount Hagen for July is 12.6°C.

Extreme temperatures

The highest air temperature recorded at Lae (in twenty-two years of record) was 38.7°C and the lowest was 19.1°C. At Port Moresby (in thirty-two years of record) the highest was 36.3°C and the lowest was 14.1°C. The mean daily range of temperature is about 8°C at lowland stations and 11°C at highland stations up to 1,500 metres elevation.

Humidity

Humidity is high generally throughout the year. In the lowlands persistently high humidity in association with high temperatures is responsible for the human discomfort experienced. The average relative humidity for January and July is shown for selected stations in a table on page 1063.

In the lowland areas the average monthly 9 a.m. relative humidity (*see* table on page 1063) is in the range 75–95 per cent throughout the year. There is little variation from month to month at any station. This is in contrast with northern Australian localities where the south-east winds of the dry season result in low relative humidities. For example, Darwin's average relative humidity at 9 a.m. ranges from 81 per cent in February to 62 per cent in July.

In the highland areas up to 2,000 metres elevation the average monthly 9 a.m. relative humidity is within the range 80–90 per cent throughout the year. The lower temperatures experienced on the highlands result in conditions being generally more comfortable in those areas.

Evaporation

The only evaporation data available are records for Port Moresby. These show that the mean monthly tank evaporation varies from 140–170 mm per month in the early part of the year to 170–200 mm per month in the latter part of the year. The average annual tank evaporation at Port Moresby over a fifteen-year period was 1,988 mm. It is probable that evaporation is less than this value in the higher humidity areas.

Sunshine and cloud

Mean daily sunshine hours are recorded for each month at Port Moresby, and the figures show a variation from 6.1 hours per day in February to 8.4 hours per day in November. The mean daily amount of sunshine at Port Moresby for the year is 6.9 hours, which is significantly less than Darwin (8.5 hours) but comparable with Brisbane (7.5 hours).

At Port Moresby the mean cloud amount varies from 5.0 eighths per day in June to 6.8 eighths in February; at Lae the variation is from 5.9 eighths in May to 6.8 eighths in February and March. The mean daily cloud amounts for the year at Port Moresby and Lae are 5.7 and 6.3 eighths respectively, which are high in comparison with Darwin (3.2).

Winds

As mentioned previously the south-east trade winds prevail from May to October and the north-west monsoonal winds prevail from December to March over most of the region. However, the broad-scale wind pattern may be completely masked by the effects of local topography and land and sea breezes. The mean 9 a.m. and 3 p.m. wind speeds and prevailing directions are shown in the tables on pages 1064–5 for Port Moresby and Lae.

At Port Moresby the mean winds are stronger during the period May–November than during December–April; for example, the 3 p.m. mean wind for August is 21.1 km/h and for March is 12.9 km/h. The winds at 3 p.m. are much stronger than at 9 a.m.; for example, for the year the 3 p.m. mean wind is 16.5 km/h and the 9 a.m. mean wind is 5.9 km/h. The prevailing direction of the wind is south-east during May–November and north-north-west to south-west during December–April.

At Lae the winds are mainly lighter than at Port Moresby. In the period May–October the winds at Lae are lighter than in the period November–April. The winds at 3 p.m. are greater than at 9 a.m. except in February and March. The prevailing direction is north-west at 9 a.m. and south-east at 3 p.m. throughout the year.

Storms and cyclones

The Papua New Guinea region is subject to thunderstorm activity, squall lines and local storms throughout the year. Severe thunderstorms are frequent in the mountainous areas, but also occur in coastal lowlands. The main tropical cyclone belt lies to the south of the region, but occasionally a tropical cyclone affects the region, causing loss of life and property.

Climatic data

The averages and extremes for a number of elements recorded at Port Moresby and Lae are given in the tables on pages 1064–5. These tables generally follow the format given for Australian capital cities included in Chapter 2 of this Year Book, the observational data being for available years of record to 1972 inclusive unless otherwise stated. Some elements included in the Australian capital city tables have been omitted from the tables for Port Moresby and Lae because of the inadequacy of observational records.

PAPUA NEW GUINEA: AVERAGE MONTHLY AND ANNUAL RAINFALL FOR
SELECTED STATIONS(a)
(Millimetres)

Station (lat. long.)	Years of record	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Bwagaioia(b) (10° 42' 152° 50')	42	259	316	276	295	306	257	178	222	237	251	250	227	3074
Daru(b) (9° 04' 143° 12')	70	278	260	325	324	226	108	94	52	43	56	110	205	2081
Dogura(b) (10° 00' 149° 55')	45	233	219	222	155	92	93	78	65	78	82	87	120	1524
Gobarager(b) (9° 50' 147° 45')	39	195	174	196	211	108	78	46	51	61	78	129	166	1493
Kairuku(b) (8° 51' 146° 32')	47	242	275	278	133	49	46	28	13	40	40	54	133	1281
Kerema(b) (7° 57' 145° 46')	50	231	231	266	285	433	385	347	329	337	299	207	208	3558
Kikori(b) (7° 24' 144° 15')	52	316	336	367	434	748	734	656	560	617	477	326	299	5870
Kokoda(b) (8° 58' 147° 43')	49	339	332	359	327	258	187	181	220	272	322	407	359	3563
Kokopo(c) (4° 20' 152° 15')	39	214	188	220	168	120	120	166	146	110	116	161	226	1955
Kwikila(b) (9° 44' 147° 44')	47	158	133	176	152	82	53	46	43	58	52	66	109	1128
Lae(c) (6° 43' 147° 00')	34	270	235	328	404	420	414	495	511	467	390	338	329	4601
Lindenhafen(c) (6° 16' 150° 28')	36	164	143	174	290	637	845	976	1081	745	432	281	191	5959
Losuia(b) (8° 32' 151° 04')	50	432	420	385	342	334	308	312	270	277	259	239	276	3854
Madang(c) (5° 13' 145° 47')	22	366	290	334	444	369	210	174	132	150	314	388	380	3551
Port Moresby(b)(d) (9° 26' 147° 13')	26	170	221	198	161	52	42	20	32	41	40	69	157	1203

(a) With twenty or more years of record to 1971. (b) Papua. (c) New Guinea. (d) See page 1064.

RAINFALL: PORT MORESBY AND LAE

Year	Port Moresby (Papua)		Lae (New Guinea)	
	Amount	No. of days	Amount	No. of days
	mm		mm	
1946	1,569	137	(a)4,283	(a)248
1947	1,031	154	4,581	261
1948	1,164	138	4,553	267
1949	1,097	164	4,439	275
1950	1,211	137	4,026	251
1951	1,156	108	4,866	250
1952	1,394	150	4,206	274
1953	919	126	5,023	264
1954	1,181	118	4,412	277
1955	999	128	3,944	261
1956	1,438	141	3,109	233
1957	1,318	129	6,062	282
1958	1,169	107	4,827	250
1959	1,058	126	4,719	245
1960	868	116	4,255	260
1961	1,086	136	4,904	267
1962	1,117	133	4,644	261
1963	1,492	138	4,196	254
1964	1,397	151	4,143	244
1965	1,035	103	4,469	265
1966	1,048	116	5,237	291
1967	1,449	147	5,051	263
1968	1,129	116	4,716	265
1969	1,130	125	5,600	262
1970	1,460	154	5,348	277
1971	1,158	162	4,076	230
1972	1,015	117	4,008	254

(a) Incomplete for July and August.

PAPUA NEW GUINEA: TEMPERATURE AND RELATIVE HUMIDITY FOR
SELECTED STATIONS

Station	Lat.	Long.	Altitude metres	Years of record	Temperature °C.				Relative humidity			
					Mean max. Jan.	Mean max. July	Mean min. Jan.	Mean min. July	Mean 9 a.m. Jan.	Mean 9 a.m. July	Mean 3 p.m. Jan.	Mean 3 p.m. July
Daru(a)	9° 04'	143° 12'	5	14	31.8	28.4	23.4	22.5	87	78	72	75
Goroka(b)	6° 04'	145° 23'	1,575	15	25.9	24.8	15.2	13.8	84	83	56	51
Kikori(a)	7° 24'	144° 15'	74	5	32.1	26.9	21.9	21.0	91	95	72	86
Madang(b)	5° 13'	145° 47'	4	21	30.2	29.6	23.2	22.8	87	82	75	75
Mount Hagen(b)	5° 52'	144° 14'	1,639	8	24.3	22.7	13.3	12.6	83	88	66	66
Samarai(a)	10° 37'	150° 40'	41	13	31.4	27.0	24.6	22.8	79	82	76	82
Wewak(b)	3° 34'	143° 38'	5	12	30.2	30.2	23.0	22.8	83	82	76	75

(a) Papua. (b) New Guinea.

CLIMATOLOGICAL DATA: PORT MORESBY

(Jackson's Strip, Lat. 9° 26' S., Long. 147° 13' E., Height above M.S.L. 28 metres)

BAROMETER, WIND, EVAPORATION AND CLOUD

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 10 metres)					Mean amount of evaporation (mm)	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)
		Average km/h		Highest gust speed (km/h)	Prevailing direction			
		9 a.m.	3 p.m.		9 a.m.	3 p.m.		
No. of years of observations	23	25	25	25	25	25	15	25
January	1,007.0	5.8	13.4	90	N	W	167	6.6
February	1,007.1	5.9	13.1	100	NNW	W	143	6.8
March	1,007.4	5.4	12.9	79	NNW	W	152	6.5
April	1,008.1	3.2	12.2	64	N	S	139	6.1
May	1,008.5	4.6	15.7	69	SE	SSE	147	5.1
June	1,009.7	7.2	18.4	74	SE	SSE	140	5.0
July	1,009.9	8.8	20.6	74	SE	SE	161	5.2
August	1,009.9	8.6	21.1	76	SE	SSE	172	5.3
September	1,010.0	8.3	22.5	74	SE	SSE	180	5.3
October	1,009.1	5.8	18.9	74	SE	SSE	201	5.4
November	1,008.1	4.2	15.8	64	SE	SE	201	5.3
December	1,007.0	4.3	13.8	87	N	SW	185	5.9
Year { Total . . . . .	..	..	..	..	..	..	1,988	..
Averages	1,008.5	5.9	16.5	..	SE	SSE	..	5.7
Extremes . . . . .	..	..	..	100	..	..	..	..

(a) Scale 0-8.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°C.)			Extreme shade temperature (°C.)		Extreme temperature (°C.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest	Lowest on grass		
						
No. of years of observations	32	32	32	32	32	13	13	
January	31.8	23.1	27.5	36.2 11/64	20.4 27/49	18.5 21/66	6.2	
February	31.5	23.0	27.3	36.1 12/47	18.8 17/57	16.8 3/68	6.1	
March	31.4	22.9	27.2	35.4 26/46	18.3 23/61	14.4 31/66	6.2	
April	30.9	22.7	26.8	34.2 5/46	16.8 11/46	13.7 1/66	7.0	
May	30.7	22.8	26.7	33.8 2/64	14.5 28/53	15.0 18/66	7.4	
June	30.0	22.2	26.1	33.9 25/58	14.4 23/54	12.2 29/65	7.0	
July	29.7	21.7	25.7	33.3 11/64	14.1 8/46	10.4 30/65	6.6	
August	29.9	21.9	25.9	33.8 12/58	14.8 14/61	10.2 31/67	6.8	
September	30.4	22.4	26.4	34.8 17/65	14.4 10/61	8.9 1/67	6.8	
October	31.4	22.8	27.1	35.5 4/65	16.3 11/55	11.2 5/65	7.4	
November	32.1	22.8	27.4	36.3 11/65	16.7 10/67	12.8 4/63	8.4	
December	32.2	23.1	27.6	36.3 16/67	19.6 1/63	17.2 16/67	7.3	
Year { Averages	31.0	22.6	26.8	..	..	..	6.9
Extremes . . . . .	..	..	..	36.3 16/12/67	14.1 8/7/46	8.9 1/9/67	..

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Mean relative humidity % at 9 a.m.	Rainfall (millimetres)				Fog mean No. days
			Mean mthly	Mean No. days of rain	Greatest monthly	Least monthly	
No. of years of observations	23	23	26	24	26	26	24
January	28.1	77	170	17	465 1967	26 1950	106 26/67
February	28.5	81	221	19	434 1957	60 1947	141 14/49
March	28.4	80	198	18	442 1951	28 1950	112 16/51
April	28.6	81	161	15	728 1946	9 1966	327 12/46
May	28.2	79	52	8	187 1952	2 1958	77 18/60
June	26.4	78	42	6	313 1963	0 1957	205 5/63
July	25.2	77	20	6	70 1949	0 1958	34 1/52
August	25.0	75	32	7	138 1953	1 1959	49 22/53
September	25.4	73	41	7	333 1958	0 (a)	150 5/58
October	26.2	69	40	7	181 1948	2 1951	54 31/64
November	26.4	68	69	8	234 1952	0 1965	98 29/54
December	27.6	73	157	13	268 1954	25 1967	123 29/65
Year { Totals . . . . .	..	..	1,203	131	..	..	..
Averages	27.0	76	..	11	..	..	..
Extremes . . . . .	..	..	..	..	728 4/1946	0 (b)	327 12/4/46

(a) 1948 and 1950.

(b) June 1957, September 1948 and 1950, and November 1965.

CLIMATOLOGICAL DATA: LAE

(Meteorological Office: Lat. 6° 43' S., Long. 147° 00' E., Height above M.S.L. 8 metres)

BAROMETER, WIND AND CLOUD

Month	Mean of 9 a.m. and 3 p.m. atmospheric pressure reduced to mean sea level (mb)	Wind (height of anemometer 10 metres)					Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)
		Average km/h		Highest gust speed (km/h)	Prevailing direction		
		9 a.m.	3 p.m.		9 a.m.	3 p.m.	
No. of years of observations	23	25	25	25	27	27	21
January	1,006.8	10.7	11.0	82	NW	SE	6.6
February	1,006.8	11.5	11.0	69	NW	SE	6.8
March	1,007.2	10.7	10.1	70	NW	SE	6.8
April	1,008.4	5.9	9.6	72	NW	SE	6.4
May	1,009.5	3.5	8.8	58	NW	SE	5.9
June	1,010.5	3.7	8.6	67	NW	SE	6.1
July	1,011.0	3.0	8.5	64	NW	SE	6.5
August	1,011.0	3.2	8.8	64	NW	SE	6.3
September	1,010.9	3.2	10.2	61	NW	SE	6.1
October	1,010.1	4.3	10.7	64	NW	SE	6.0
November	1,008.5	6.2	11.8	72	NW	SE	6.1
December	1,007.4	8.6	11.0	74	NW	SE	6.5
Year { Averages	1,009.0	6.2	9.4	..	NW	SE	6.3
Extremes	..	..	..	82	..	..	..

(a) Scale 0-8.

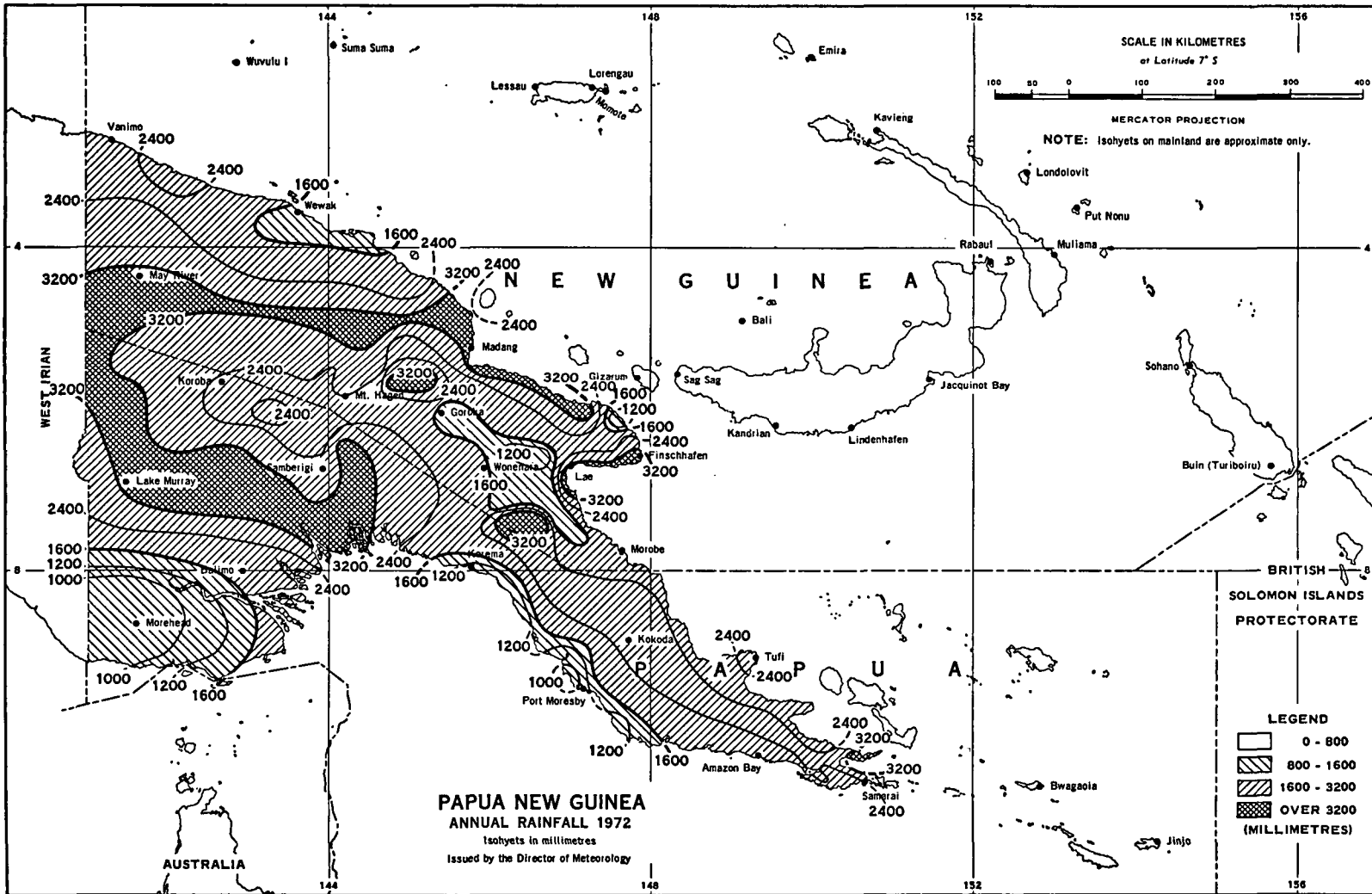
TEMPERATURE

Month	Mean temperature (°C.)			Extreme shade temperature (°C.)	
	Mean max.	Mean min.	Mean	Highest	Lowest
No. of years of observations	22	22	22	22	22
January	31.1	23.7	27.4	38.2 20/59	20.7 7/60
February	31.2	23.3	27.5	37.3 14/57	21.1 24/62
March	30.8	23.7	27.2	38.7 6/56	21.7 16/56
April	30.1	23.3	26.7	33.9 4/56	21.3 22/66
May	29.4	22.9	26.2	33.2 24/52	19.4 30/53
June	28.6	22.4	25.5	33.4 8/58	19.4 20/53
July	27.8	22.0	24.9	32.2 16/64	19.3 31/65
August	27.9	22.0	24.9	32.4 28/64	19.4 27/55
September	28.7	22.2	25.4	32.2 12/13/50	19.1 13/61
October	29.6	22.6	26.1	35.2 31/49	19.1 4/65
November	30.4	23.1	26.7	34.4 30/61	20.9 (a)
December	30.7	23.5	27.1	35.6 24/59	20.3 19/64
Year { Averages	29.7	22.9	26.3	38.7	19.1
Extremes	..	..	..	6/3/56	(b)

(a) 13/1965 and 11/1968. (b) 13/9/61 and 4/10/65.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure mean 9 a.m. (mb)	Rainfall (millimetres)					Fog mean No. days
		Mean monthly	Mean No. of days of rain	Greatest monthly	Least monthly	Greatest in one day	
No. of years of observations	23	34	25	34	34	25	23
January	28.0	270	21	522	107	199	0.1
February	28.5	235	19	403	53	134	0.1
March	28.3	328	21	524	140	162	0.1
April	28.7	404	22	602	237	199	0.0
May	28.3	420	22	840	67	166	0.1
June	26.5	414	22	770	115	226	0.0
July	25.4	495	25	1,018	143	299	0.1
August	25.0	511	24	823	161	259	0.0
September	25.6	467	23	882	193	156	0.0
October	26.5	390	21	695	122	147	0.1
November	26.7	338	21	577	128	184	0.0
December	27.7	329	21	605	154	228	0.0
Year { Totals	..	4,601	262	..	..	..	0.6
Averages	27.1	..	..	..	..	..	..
Extremes	..	..	..	1,018	53	299	..
				7/1953	2/1957	16/7/53	



Population

Censuses of the non-indigenous population of Papua New Guinea have been taken in conjunction with censuses of Australia. For the indigenous population of Papua New Guinea, estimates of size, geographic location, and the broad age distribution of the population were available from the results of the Division of District Administration census (formerly known as the Tax Census). This was conducted over most of the country, but was continuous rather than conducted at a common date for all areas covered. No regular pattern of operations was adopted, although once the census had been taken in an area it was in general repeated fairly frequently. Although these estimates were of great value, the limitations of the information on population characteristics and the lack of simultaneous collection for all areas made them insufficient for many purposes. The 1966 census covered both indigenous and non-indigenous population, and provided, for the first time, an almost complete picture of the population of Papua New Guinea.

Figures for the non-indigenous population as enumerated at censuses held in conjunction with Australian censuses and estimates of the indigenous population based on the Division of District Administration censuses are set out below.

PAPUA NEW GUINEA: POPULATION AT CENSUSES, 1921 TO 1971

Year	Indigenous			Persons estimated	Total persons	Non-indigenous		
	Enumerated					Males	Females	Persons
	Males	Females	Persons					
1921	(a)160,270	(a)118,963	(a)279,233	..	..	3,910	1,341	5,251.
1933	..	..	571,965	..	..	4,941	2,448	7,389
1941	..	..	..	..	..	..	..	..
1947	..	..	..	..	..	6,426	3,013	9,439
1950	533,394	458,590	991,984	447,680	1,439,664	..	..	..
1954	689,577	607,212	1,296,789	386,914	1,683,703	11,068	6,687	17,755
1961	958,482	856,909	1,815,391	131,640	1,947,031	14,648	10,682	25,330
1966	1,120,306	1,030,011	2,150,317	..	2,150,317	20,053	14,616	34,669
1971	(b)1,262,728	(b)1,172,785	(b)2,435,513	..	2,435,513	31,240	23,288	54,528

(a) 1920; figures for New Guinea for 1921 not available. (b) Due to enumeration difficulties this figure includes the population of Rabaul urban villages estimated from non-census sources to be approximately 5,700 indigenous males and 5,600 indigenous females.

The total indigenous population of Papua New Guinea at the 1966 census was 2,150,317 persons, and the total non-indigenous, 34,669 persons. For details of selected characteristics of Population Census 1966 see Year Book No. 55, pages 1165-69.

Population Census, 1971

The census was conducted in July 1971 and covered both indigenous and non-indigenous populations. For census purposes respondents were asked to state whether they considered themselves to be indigenous, Europeans, Chinese or of some other race or mixture of these, without the guidelines provided in 1966 (however, it is doubtful that this will affect comparability between the two censuses).

Figures for the population (indigenous and non-indigenous) of the major towns at the census, July 1971, were as follows: Port Moresby, 76,507; Lae, 38,707; Rabaul, 26,619; Madang, 16,865; Wewak, 15,015; Goroka, 12,065; Mount Hagen, 10,621; Daru, 5,744; Popondetta, 4,494; Lorengau, 4,323 (including Lombrum); Bulolo, 4,001; Kavieng, 3,301; Alotau, 2,499; Mendi, 2,493.

The Census completely enumerated virtually all the non-indigenous population, together with all the indigenous population located in areas outside rural villages. The rural village population was estimated by means of a representative sample of approximately 10 per cent of rural villages. Consequently the figures published for the population of rural villages are estimates of total figures based on a representative sample, while those published for other areas are totals based on complete enumeration. Totals for a district or the country as a whole are the sums of these estimated and actual figures.

Selected characteristics

The following tables and text present statistics relating to some selected characteristics as derived from the 1971 census. Details of all characteristics published can be found in *Bulletins Nos 1 to 27 Population Census—1971, Summary of Population Estimates, Population Characteristics*. In the tables, minor discrepancies between totals and sums of components are due to rounding of estimates calculated from sample data.

POPULATION, BY ADMINISTRATIVE DISTRICTS(a)
PAPUA AND NEW GUINEA CENSUS, JUNE–JULY 1971

(Persons)

<i>District</i>	<i>Indigenous (b)</i>	<i>Non- Indigenous (b)</i>	<i>Approximate area, square Total kilometres</i>	<i>Persons per square kilometre</i>	
Western	70,340	558	70,898	103,600	0.68
Gulf	58,273	291	58,564	38,900	1.51
Central	175,515	18,322	193,837	31,100	6.23
Milne Bay	108,528	932	109,460	20,200	5.42
Northern	65,918	596	66,514	23,300	2.85
Southern Highlands	192,047	807	192,854	16,100	11.98
Eastern Highlands	236,752	2,888	239,640	12,900	18.58
Chimbu	159,729	516	160,245	7,300	21.95
Western Highlands	343,272	2,760	346,032	23,800	14.54
West Sepik	93,479	499	93,978	51,000	1.84
East Sepik	180,149	1,744	181,893	27,200	6.69
Madang	168,212	2,741	170,953	28,000	6.11
Morobe	240,931	8,103	249,034	32,900	7.57
West New Britain	60,783	732	61,515	18,400	3.34
East New Britain	108,340(c)	5,512	113,852(c)	18,100	6.29
New Ireland	58,507	1,036	59,543	9,800	6.08
Bougainville	90,382	5,981	96,363	10,600	9.09
Manus	24,356	510	24,866	2,100	11.84
Total, Papua and New Guinea	2,435,513(c)	54,528	2,490,041(c)	475,300	5.24

(a) District boundaries at 30 June 1971. (b) Persons were classified indigenous or non-indigenous according to how they replied on the census forms. (c) Due to enumeration difficulties this figure includes the population of the Rabaul urban villages estimated from non-census sources to be approximately 5,700 indigenous males and 5,600 indigenous females

Constitutional development

The *Papua-New Guinea Provisional Administration Act 1945–1946*, which provided for the transfer of control from the military authorities to civil authorities after the 1939–45 War, was repealed by the *Papua and New Guinea Act 1949*. The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union of the Territory of Papua and the Territory of New Guinea with one Administrator, a Legislative Council and an Executive Council, one Supreme Court, and one Public Service.

For an outline of the development of the Legislative and Executive (later Administrator's) Councils between 1949 and 1963, see *Year Book No. 51*, page 117.

In May 1963 the Australian Government passed an amendment to the *Papua and New Guinea Act*, making provision for a House of Assembly of sixty-four members to replace the Legislative Council. The house then consisted of ten official members appointed by the Governor-General on the advice of the Administrator, forty-four members elected by the people of the Territory on a common roll in forty-four open electorates, and ten non-indigenous persons elected on a common roll in ten special electorates comprising one or more open electorates. The first elections for the House of Assembly were held in February–March 1964, and the inaugural meeting of the new House was convened on 8 June 1964.

The 1963 Act also increased the membership of the Administrator's Council from seven to eleven, seven of whom must be elected members of the House of Assembly.

In October 1966 the Australian Parliament passed a further amendment to the *Papua and New Guinea Act*, providing for an increase in the membership of the House of Assembly to ninety-four, sixty-nine members representing open electorates, fifteen from regional electorates and ten official members.

The second general election for the House of Assembly was held from 17 February–16 March 1968, and the Second House was convened on 4 June 1968. A House of Assembly Ministerial Nomination Committee in conjunction with the Administrator chose fifteen elected members who were appointed to seven Ministerial Member and eight Assistant Ministerial Member positions.

The *Papua and New Guinea Act 1968* provided for the Administrator's Council to become the Administrator's Executive Council, deciding major matters of Territory policy. In June 1968 it had its first meetings. It consisted of the Administrator, the seven Ministerial Members, three official Members, and a twelfth member who was an elected M.H.A. but a non-office holder.

The result of constitutional instruments signed in August 1970 by the Governor-General and the Minister for External Territories was to transfer full authority in relation to specified matters to designated ministerial office holders. This effectively enhanced the role of the Administrator's Executive Council as the Administrator became bound to accept its advice in respect of these specified matters. Ministerial office holders are fully responsible for the functions of the specified departments, or parts thereof.

The third general election for the House of Assembly was held from 19 February to 11 March 1972, and the Third House was convened on 20 April 1972. Following recommendations made by the Select Committee on Constitutional Development appointed by the Second House, the number of elected members was increased to 100; 82 members representing open electorates, and 18 representing regional electorates. The number of official members was reduced to 4. The Ministry was increased to 17, all with the designation 'Minister', and later in 1972 the limit on the number of Ministers was removed. The Administrator's Executive Council consisted of the Administrator and 10 Ministers, one of whom was elected by his fellow Ministers to be Deputy Chairman of the Council. Mr M. Somare M.H.A. was elected to the Deputy Chairman's position and as the leader of the governing majority in the House of Assembly, soon became known as the Chief Minister.

A National Coalition Government was formed following the 1972 General Election, with Mr M. Somare (Pangu Pati) as leader and Dr J. Guise (Independent) as deputy leader. Mr J. Chan (Peoples Progress Party) and Mr T. Kavali (New Guinea National Party) lead the other two major party groups which form the Coalition. The National Coalition also had the support of several independent members and the three Mataungun Association members of the House.

In July/August 1972, discussions between the Minister for External Territories, Papua New Guinea Ministers and the Papua New Guinea Leader of the Opposition on further progress to self-government decided on powers which could be transferred at an early date, and initiated study into the transfer of others. It was agreed that Ministerial meetings would be held to discuss future progress as considered necessary.

Two major decisions by the Papua New Guinea House of Assembly in 1972, set the date for self-government and established a Constitutional Planning Committee to make recommendations for a self-governing constitution which would also serve an independent Papua New Guinea. The Australian Government accepted 1 December 1973 as the timing for self-government.

Further transfer of powers to Papua New Guinea Ministers took place during 1973 and on 1 December Papua New Guinea became formally self-governing. From that time the Papua New Guinea Government has exercised full control over its internal affairs, with the Australian Government retaining power in the reserved areas of foreign relations and trade, defence, the Supreme Court and the administration of lower courts, the Public Solicitor, prosecutions, electoral policy and House of Assembly matters.

The Australian Government has confirmed that it will only act in the reserved areas after consulting with and obtaining the advice of Papua New Guinea, and Papua New Guinea has agreed that it will consult Australia before taking action in matters where, although authority has been transferred, Australian legislation still applies to Papua New Guinea.

From the date of self-government the office of the Administrator was replaced by that of High Commissioner of Papua New Guinea. In all matters except those in the reserved areas the High Commissioner is required to accept the advice of the Executive Council, formerly the Administrator's Executive Council, which was at self-government renamed and restructured by the removal of Official Members.

The Australian Government has stated that the decision on the date for Papua New Guinea's independence will be arrived at in consultation between the Australian and Papua New Guinea Governments and subject to the endorsement of the House of Assembly as the elected representatives of the people. In July 1974 the House resolved that the date of independence should not be set until the enactment of a Papua New Guinea Constitution. The Constitutional Planning Committee's final report was tabled during the August/September 1974 sitting of the House.

Judiciary

The courts which exercise jurisdiction within Papua New Guinea are: the Supreme Court of Papua New Guinea, District Courts, Local Courts, Village Courts, Children's Courts and Wardens' Courts.

The Supreme Court is the highest judicial authority and has unlimited criminal and civil jurisdiction. Appeals lie from decisions of a single judge to the Full Court of the Supreme Court and, subject to prescribed conditions, from decisions of the Full Court to the High Court of Australia. District Courts have criminal jurisdiction over all summary offences, i.e. generally, all offences punishable by less than 12 months' imprisonment, and conduct preliminary hearings in respect of indictable offences. They also exercise civil jurisdiction over claims for amounts up to \$2,000. Local Courts have criminal jurisdiction over summary offences and may impose penalties not greater than a fine of \$100 or six months' imprisonment, plus civil jurisdiction over matters involving up to \$200. Village Courts are proposed to be set up with village leaders as magistrates. It is expected that there will be some in operation by January 1975. They will have authority for matters involving up to \$100 and jurisdiction over most areas of law with the probable exception of land. Children's Courts have jurisdiction over all offences by persons under the age of 16 years, except the most serious offences, and in affiliation and other child welfare cases. Wardens' Courts exercise jurisdiction over offences against mining laws and civil cases concerning mining or mining lands.

In addition, there is the Land Titles Commission set up under the *Land Titles Commission Act* 1962-1972 to inquire into and determine rights in land, particularly native land. The Commission has a specific function under the *New Guinea Land Titles Restoration Act* 1951-1968 to inquire into and determine claims to interest in land where the official records were lost or destroyed as a result of the Japanese invasion of New Guinea. The future and function of the Land Titles Commission has been examined as part of a Commission of Enquiry into Land matters, and legislation implementing the Commission's recommendations is expected to be introduced into the House of Assembly in 1974.

Agriculture and animal industry

Soils

Although many parts of Papua New Guinea are covered by skeletal soils unsuitable for agriculture, there are extensive areas in all districts where fertile soils occur suitable for growing a variety of crops. Soils on the coastal plains consist mainly of alluvium and podsolised alluvium. The coastal swamp soils, of which there are extensive areas in the delta plains of the Sepik and Fly rivers and intermittently around the coasts and along the lower reaches of other rivers, are in general quite unsuited to any form of agricultural development.

Volcanic soils probably offer the greatest prospects for development. They are found mostly on the central plateau and southern foothills of the main island, but there are also areas in New Britain (particularly in the Gazelle and Willaumez Peninsulas), Bougainville and New Ireland, as well as in numbers of smaller islands. Other rich soils are the alluvials of the river valleys. The largest single area of this type is in the valley occupied by the Ramu and Markham Rivers.

Land tenure

The *Land Act* 1962-1969 of Papua New Guinea, which came into operation in 1963, replaced much land legislation previously in force separately in the two Territories. This simplification in legislation was a major step towards applying uniform principles to land tenure throughout the whole of Papua New Guinea. All land in Papua New Guinea other than native land or land subject to any estates, rights, titles or interests in force from time to time is Government land.

There is considerable variation throughout Papua New Guinea in the nature of customary ownership of land. In most areas some rights remain in the landholding group, and individuals within the group have limited rights or use, either for life or for a shorter period. Thus the normal system by which the rights of ownership in land use are acquired is by birth to a landholding group. Transfer of rights between individuals by sale and purchase appears to have been unusual in the past, but this practice is now an established custom in some localities and appears to be increasing. Inheritance may be based on either patrilineal or matrilineal descent, or both. In parts of Papua New Guinea, however, there is a tendency for the whole inheritance system to change, particularly in communities where it is based on matrilineal descent. Following a close study of the problems in relation to land holdings by indigenes, the Government has laid down the following broad principles of policy.

The ultimate and long-term objective in Papua New Guinea is to introduce a single system of land holding regulated by the Government by statute, administered by the Department of Lands, Surveys and Mines of the Government and providing for secure individual registered titles after the pattern of the Australian system.

Only the Government working through the Department of Lands, Surveys and Mines and through the Registrar of Titles may issue and register land titles.

Land subject to native custom remains subject only to native custom until it is taken out of custom either by acquisition by the Government or by a process, provided for by the *Land (Tenure Conversion) Act 1963-1967*, of conversion of title to an individual registered title. Upon either acquisition or conversion of title, compensation is provided in respect of extinction of rights under native custom.

Land held under native custom may not be acquired outside of native custom by other than the Administration. Land may not be acquired by the Government except for prescribed public purposes unless the native owners are willing to sell and the Government is convinced, through its Division of District Administration, Department of the Chief Minister and Development Administration that the land is not required by them, and conversion of title from native custom to individual registered title may take place only if all those interested in the land under native custom consent to conversion and the method of conversion.

The services of Commissioners under the *Land Titles Commission Act 1962-1972* are used, as a first priority, on investigations into claims by the Government that land is ownerless and may therefore be declared administration land, on investigation into the ownership under native custom of land proposed to be acquired by the Government, on settlement of disputes about the ownership of land held under native custom, and on investigations into the rights held under native custom in land proposed to be converted to individual registered title. The Commissioners, as opportunity offers, continue investigations into the holding of land under native custom; the results of such investigations are recorded for use in connection with future acquisitions or conversions of title.

The legislation and administrative steps necessary to put the remainder of this policy into effect are well advanced.

At 30 June 1974 the distribution of alienated land in Papua New Guinea according to tenure was as follows.

Held by private non-indigenous inhabitants—freehold land, 160,858 hectares, leasehold land, 301,978 hectares, land tenure conversion (freehold), 6,330 hectares.

Native reserves, 12,580 hectares.

Other Government land including land reserved for public purposes, 823,535 hectares.

Primary industries

General

The products of Papua New Guinea are obtained principally from its agricultural, forestry, mining, and fishing industries. Indigenous subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main indigenous agricultural products are taro, yams, sweet potatoes, bananas, and pawpaws. Peanuts are becoming of increasing importance in the indigenous diet. Non-indigenous enterprise produces most of the commodities exported. Indigenous in recent years have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption and produce copra, coffee, cocoa, tea, passion-fruit, pyrethrum and palm oil for export.

The principal agricultural products for the export trade are coffee, copra and coconut oil, cocoa and timber. The export of tea and rubber has increased. Palm oil is becoming a substantial export.

Non-indigenous crop production

In 1972-73 there were 1,223 holdings in use by non-indigenous persons. The total area of these holdings was 411,422 hectares. The following tables summarise the information available for principal activities.

**PAPUA NEW GUINEA: NUMBER OF HOLDINGS—NON-INDIGENOUS
AREA, PRODUCTION AND NEW PLANTINGS**

(Source: Rural Industries Bulletin, 1972-73, Papua New Guinea Bureau of Statistics)

Year ended 30 June—	Holdings	Area under crop(a)	Trees(a)	Production	New plantings	
					Area	Trees(b)
		hectares	'000	tonnes	hectares	'000
Coconuts—						
1969(c)	685	109,926	12,809	98,561	1,644	586
1970	678	110,012	12,972	93,437	1,520	382
1971	677	109,112	12,854	89,355	1,150	304
1972	659	107,638	11,803	80,278	1,142	239
1973	612	108,284	13,665	77,385	604	141
Cacao—						
1969(c)	443	53,920	21,400	20,056	2,062	1,749
1970	441	53,422	22,180	18,523	1,550	1,690
1971	437	54,675	21,714	19,481	2,000	1,330
1972	435	56,342	22,043	18,732	1,127	1,245
1973	437	60,615	21,942	15,544	962	381
Coffee—						
1969(c)	237	5,943	10,004	6,853	269	937
1970	229	6,085	9,798	6,921	324	828
1971	227	6,279	10,466	8,307	429	983
1972	222	6,207	11,490	8,292	273	760
1973	235	7,050	13,805	12,212	294	893
Rubber—						
1969(c)	83	13,745	4,126	6,470	191	167
1970	79	13,743	3,901	5,741	227	134
1971	75	13,243	3,810	6,355	49	121
1972	59	12,807	3,245	5,422	122	138
1973	72	14,666	6,202	5,641	16	8

(a) Includes mature and immature areas. (b) Includes replacements. (c) 31 March.

**PAPUA NEW GUINEA: AREA UNDER PRINCIPAL CROPS AND CROP PRODUCTION
YEARS ENDED 30 JUNE—NON-INDIGENOUS**

(Source: Rural Industries Bulletin, 1970-71, 1971-72, 1972-73, Papua New Guinea Bureau of Statistics)

Crop	Recorded area in hectares			Recorded production (tonnes)			Average yield per mature hectare		
	1971	1972	1973	1971	1972	1973	1971	1972	1973
Permanent crops—									
Copra—									
Plantation	109,112	107,638	108,284	89,355	80,278	77,385	0.95	0.87	0.82
Trade(a)	..	..	..	2,859	2,600	2,756	..	..	..
Coconuts, for use as such	..	..	..	5,259	10,777	7,043	..	..	..
Cacao—									
Plantation	54,675	56,342	60,615	19,481	18,732	15,544	0.46	0.42	0.35
Trade(a)	..	..	..	914	50	484	..	..	..
Coffee—									
Plantation	6,279	6,207	7,050	8,307	8,292	12,212	1.68	1.62	2.09
Trade(a)	..	..	..	957	53	774	..	..	..
Oil palms	1,988	2,524	2,693	51	9,437	8,793	..	7.36	4.58
Rubber	13,243	12,807	14,666	6,355	5,422	5,641	0.58	0.51	0.44
Tea	2,984	3,383	3,036	1,261	2,071	2,887	0.97	0.61	1.07
Grain crops—									
Maize	122	68	91	13	60	39	0.11	0.88	0.43
Rice	87	75	26	85	52	48	0.97	0.69	1.85
Sorghum	899	856	606	2,193	1,520	1,613	2.44	1.78	2.66
Crops for green fodder—									
Maize	15	7	11	..	..	..	..	..	..
Sorghum	223	303	372	..	..	..	..	..	..
Other	421	93	21	..	..	..	..	..	..
Industrial crops—									
Peanuts	317	303	140	206	156	109	0.65	0.51	0.78
Vegetable crops—									
Grown for sale—									
Beans (green)	11	12	2	18	20	9	1.64	1.67	4.50
Tomatoes	17	14	38	41	53	90	2.41	3.79	2.37
Potatoes, English	87	23	15	62	243	448	1.40	10.56	29.87
Potatoes, sweet	223	129	267	3,178	1,006	867	14.25	7.80	3.25
Pumpkins	18	19	24	105	80	73	5.89	4.21	3.04
Other	157	123	120	..	..	..	..	..	..
For consumption on holding—									
Potatoes, sweet	1,694	1,694	1,462	12,595	13,039	12,931	7.43	7.70	8.84
All other	1,446	615	567	..	..	..	..	..	..
All other crops	1,988	524	2,278	..	..	..	..	..	..
Total	196,016	193,759	199,691	..	..	..	..	..	..

(a) Production from crops purchased from indigenous growers.

Indigenous agriculture

Most of the indigenous inhabitants of Papua New Guinea are agriculturalists producing fruit and vegetables for their own consumption. The crops grown vary according to environment and altitude and include yams, taro and sweet potatoes, coconuts, bananas, papaws, maize, sugar cane, cassava, beans, peanuts, rice, cucurbits, and tobacco. Sago is the staple food in the extensive semi-inundated areas which occur along the lower valleys of the major rivers. In these areas it is cut largely from naturally occurring stands. In other parts of the country small areas of sago are grown along stream banks and in swampy patches and are regarded as a reserve in times of poor harvest. In recent years the indigenes have taken up the production of introduced crops such as peanuts, rice, cucurbits, tobacco and maize for their own consumption, and cocoa, coffee, tea, palm oil, passion fruit and pyrethrum for export. Some small-scale rubber growing is now being undertaken. In coastal areas large quantities of copra are produced. In 1971-72 estimated indigenous production was: copra, 47,500 tonnes; coffee, 20,722 tonnes; cocoa, 8,541 tonnes. In many localities the indigenes follow a farming system known as bush fallowing rotation.

The growing of food is done by both the men and the women. The division of work is usually clearly defined within the village itself, but this division is not necessarily the same in all areas. Generally the felling of forests is done by the men, and carrying the harvested food home to the village is done by the women. Other work, however, such as cultivating, planting and weeding may be done by either men or women according to the customs of the particular village or area.

The advancement of indigenous agriculture for local food supply and improved land use in village gardens as well as for economic production of crops for sale have a high priority in Government policy for Papua New Guinea. In recent years the Administration has intensified the program of agriculture extension work among the indigenes. Indigenous cattle projects are increasing rapidly, and the greater part of the country's coffee crop is produced by the indigenous sector.

**PAPUA NEW GUINEA: AREA OF PRINCIPAL CROPS AND
CROP PRODUCTION, YEAR ENDED 30 JUNE**

(Source: *Rural Industries Bulletin*, 1972-73; Papua New Guinea Bureau of Statistics.)

	Area under crop (hectares)			Production (tonnes)		
	Non-indigenous	Indigenous	Total	Non-indigenous	Indigenous	Total
Coconuts—						
1969	109,926	141,136	251,062	98,561	48,444	147,005
1970	110,012	135,742	245,754	93,437	47,460	140,897
1971	109,112	137,469	246,581	89,355	51,595	140,950
1972	107,639	n.a.	n.a.	80,278	47,500	127,778
1973	108,284	n.a.	n.a.	77,385	51,872	129,257
Cocoa—						
1969	53,920	17,922	71,842	20,056	6,451	26,507
1970	53,422	18,909	27,331	18,523	6,406	24,929
1971	54,675	19,475	74,150	19,481	8,907	28,388
1972	56,342	n.a.	n.a.	18,732	8,541	27,273
1973	60,615	n.a.	n.a.	15,544	6,816	22,360
Coffee—						
1969	5,943	20,100	26,043	6,853	16,527	23,380
1970	6,085	23,947	30,032	6,921	23,010	29,931
1971	6,279	22,201	28,480	8,307	21,049	29,356
1972	6,207	n.a.	n.a.	8,292	20,722	29,014
1973	7,050	n.a.	n.a.	12,212	n.a.	n.a.
Pyrethrum—						
1969 . . . . .	..	1,661	1,661	..	161	161
1970 . . . . .	..	1,325	1,325	..	202	202
1971 . . . . .	..	1,184	1,184	..	162	162
1972 . . . . .	..	n.a.	n.a.	..	n.a.	n.a.
1973 . . . . .	..	n.a.	n.a.	..	n.a.	n.a.
Rubber—						
1969	13,745	1,709	15,454	6,470	29	6,499
1970	13,743	2,223	15,966	5,741	31	5,772
1971	13,243	1,960	15,203	6,355	76	6,431
1972	12,807	n.a.	n.a.	5,422	n.a.	n.a.
1973	14,666	n.a.	n.a.	5,641	n.a.	n.a.
Tea—						
1969	2,133	211	2,344	376	45	421
1970	2,695	265	2,960	984	90	1,074
1971	2,984	370	3,354	1,261	290	1,551
1972	3,383	n.a.	n.a.	2,071	n.a.	n.a.
1973	3,036	n.a.	n.a.	2,887	n.a.	n.a.

Livestock

Total cattle on non-indigenous holdings at June 1973 was 79,599. Indigenous involvement in the cattle industry is being encouraged. An estimated 11,817 head of cattle were owned by indigenes in 1971. Dairy farming is carried out on a small scale near major towns.

A number of British breeds of cattle are represented, but for best results the use of Zebu cross-bred types of cattle is desirable. For dairying the Jersey seems to be the best breed and adapts quite well to tropical conditions.

A central abattoir controlled by the Administration has been set up at Lae and Government slaughterhouses at Port Moresby, Goroka and Mount Hagen. There are smaller private slaughterhouses at other centres.

The following table shows the numbers of the various kinds of livestock on non-indigenously occupied holdings in Papua New Guinea at 30 June for the years 1971 to 1973.

PAPUA NEW GUINEA: LIVESTOCK NUMBERS ON NON-INDIGENOUS HOLDINGS

(Source: *Rural Industries Bulletin*, 1972-73, Papua New Guinea Bureau of Statistics.)

Kind of stock	30 June		
	1971	1972	1973
Horses	957	669	964
Cattle—			
For dairying—			
Cows—in milk	1,345	1,379	1,442
dry	1,065	1,205	1,548
Heifers, one year and over	779	865	1,009
Heifer calves, under one year	748	898	1,134
Bulls, one year and over	195	210	254
Bulls, under one year	119	125	138
Total dairying cattle	4,251	4,682	5,525
For beef—			
Cows and heifers, one year and over	36,114	39,405	40,727
Calves, under one year	9,094	8,608	9,796
Bulls, one year and over	1,876	2,102	2,273
Bulls, under one year	1,470	1,708	1,346
Other, one year and over	20,120	20,447	19,932
Total beef cattle	68,674	72,270	74,074
Total all cattle	72,925	76,952	79,599
Sheep	382	101	449
Pigs—			
Boars	295	266	305
Breeding sows	1,458	1,572	1,632
Suckers, weaners, and slips	4,218	3,212	3,652
Other	1,325	1,730	2,022
Total pigs	7,296	6,780	7,611
Goats	641	313	465
Poultry(a)—			
Fowls	172,514	152,998	179,642
Ducks	6,304	4,153	3,360
Turkeys	337	793	149
Geese	40	565	42
Total poultry	179,195	158,509	183,193

(a) Only recorded where poultry products are marketed or flocks exceed 100 birds.

Survey of indigenous agriculture and ancillary surveys, 1961-62

A survey of the agriculture of indigenes of Papua New Guinea was carried out in 1961-62 by the Papua New Guinea Bureau of Statistics in conjunction with the Australian Bureau of Statistics and the Papua New Guinea Department of Agriculture, Stock and Fisheries. A comprehensive report on the surveys was published by the Papua New Guinea Statistician in 1963, and reference should be made to this for further information. A summary of the principal results of the survey appears on pages 1104-10 of Year Book No. 52. Statistics of indigenous cash crop and cattle projects are compiled annually by the Government's Department of Agriculture, Stock and Fisheries.

Forestry

Many species of tropical timbers are found in Papua New Guinea, and there is a large pure stand of Klinkii pine in the Bulolo Valley. This timber is used mainly for the production of plywood and veneer. The Papua New Guinean forests produce all local timber requirements as well as exports of logs, sawn timber, plywood and veneer. The Government operates a forestry school at Bulolo to train forestry officers, and has established a research centre for forest products at Hohola near Port Moresby as well as regional silvicultural stations and a large herbarium at Lae.

The Government is making available for public application a number of extensive timber areas estimated to contain a total of about 33 million cubic metres of logs and possibly twice this quantity of pulpwood. It is intended that those areas should form the basis for the development of integrated forest industries, which would be large and economically viable. Feasibility studies have been undertaken by consultants and some interested firms. Subject to negotiation the areas will be allocated on long-term permits. The Government has acquired from the indigenous peoples timber rights over 2 million hectares of forest for industrial development. Reforestation of permanently dedicated land is being undertaken by the Government, the area planted to date being 10,288 hectares.

At 30 June 1973, 72 permits and 36 licences were current, the total area of forest involved being 970,000 hectares. The total number of sawmills was 68 and the total sawn timber produced during 1972-73 was 142,000 cubic metres. Total log production was 831,000 cubic metres of which 451,000 cubic metres was exported.

Fisheries

Over 1,400 different species of fish are to be found in the coastal and inland waters of Papua New Guinea and many are important food fish. Those of greatest commercial significance are tunas (mainly skipjack), prawns, barramundi, and tropical lobster. Efforts are being made to encourage indigenous fishermen to regard fishing as a source of cash income and not merely as a means of subsistence. This involves the Administration in research and extension work and requires the improvement of refrigeration, transportation and marketing facilities throughout the country. In the Highlands there is increasing interest in fish culture in freshwater ponds.

Commercial fishing for prawns by joint venture companies is increasing and considerable expansion is likely in the tuna fishery, in which three Japanese and one United States of America joint venture companies are at present engaged.

In the 1972-73 the main exports of marine produce from Papua New Guinea were 12,044,691 kilograms of tuna and 475,000 kilograms of frozen crayfish tails and prawns valued respectively at \$3,025,000 and \$1,355,000. Exports of cultured pearls amounted to \$186,000. Other important exports are crocodile skins, marine shell and barramundi.

Mining

A large number of minerals have been found in Papua New Guinea, including platinum, gold, silver, copper, tin, lead, zinc, cinnabar, iron, osmiridium, manganese, sulphur, chromite, gypsum, lignite and brown coal.

A large low grade copper deposit with ore reserves of 900 million tonnes of ore containing 0.48 per cent copper and 0.36 dwt per ton gold has been developed by Bougainville Copper Pty Ltd, a partly owned subsidiary of Conzinc Rio Tinto Australia Ltd, with a 20 per cent shareholding by the Government. Production began in 1972 and ore is expected to be mined at the rate of 30 million tonnes per annum. Production for 1973-74 was 184,181 long dry tonnes of copper, 20,741,000 grams of gold and 46,381,000 grams of silver for export.

Before the 1939-45 War, gold was an important item in Papuan production, but it has since dwindled to insignificance. Large quantities of copper ore were mined and exported up to 1940. A large low grade copper ore body is being considered for development in the Star Mountains, near the West Irian border. Extensive deposits of magnetite sands exist along the Gulf of Papua coastline, but these contain the undesirable impurity titanium, and ways of separating this from magnetite are under investigation. The production of gold in Papua New Guinea for 1972-73 was about 17,512,000 grams.

The laws in operation governing mining are the *Mining Act* 1928-1966, the *Mines and Works Regulation Act* 1935-1962 and the *Mining Development Act* 1955-1960 and the regulations made thereunder.

Indications of oil have been found at scattered locations over a large area, but commercial quantities have not been discovered. Natural gas has been found in several wells in the Gulf District (including offshore), but its commercial use is not yet economically feasible.

At 30 June 1973, 30 permits and licences were effective under the provision of the *Petroleum (Prospecting and Mining) Act* 1951-1968 and the *(Commonwealth) Petroleum (Submerged Lands) Act* 1967-1968.

Secondary industries

The major manufacturing industries are generally those processing primary products, mainly for exports. Examples of these are plywood, coconut oil, copra by-products, desiccated coconut and pyrethrum.

Industries catering for the rapidly expanding local market remain numerically predominant. These include the brewing of beer, furniture making and assembly of electrical appliances; the production of cigarettes and twist tobacco, aerated waters, clothing, plastic articles, concrete products, glass bottles, drums, industrial gases, chemicals, fibreglass products, nails and other wire products, packaging and paper products, paints, metal louvre frames, wood preservative, metal roofing, water heaters, cast-iron stoves and other building materials, tyre repairs, fire protection equipment, agricultural machinery, matches, printing and ship-building.

A wide variety of services has also been established such as engineering workshops, plumbing establishments, motor repairs and electrical services.

PAPUA NEW GUINEA: SUMMARY OF FACTORY OPERATIONS

(Source: *Secondary Industries Bulletin*, 1972-73, Papua New Guinea Bureau of Statistics.)

	1970-71	1971-72	1972-73
Number of factories(a)	729	722	702
Average number employed(b)	15,283	16,336	16,198
Salaries and wages paid(c)	19,195	23,597	24,844
Value of power, fuel light, etc., used(d)	2,812	4,963	6,648
Value of materials used(e)	54,935	58,174	62,117
Value of production(f)	49,234	58,411	69,433
Value of output(g)	106,981	121,548	138,198
Value of land and buildings(h)	30,550	46,176	46,672
Value of plant and machinery(h)	28,974	73,306	72,708

(a) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (b) Average weekly employment including working proprietors. (c) Excludes drawings by working proprietors. (d) Includes water and lubricating oil. (e) Includes value of containers, packing, etc., tools replaced, and repairs to plant. (f) Value added in process of manufacture (i.e. value of output less value of materials and power, fuel, etc. used). (g) Value of goods produced including amounts received for repair work and other work done. (h) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

PAPUA NEW GUINEA: FACTORY OPERATIONS BY CLASS OF INDUSTRY, 1972-73

(Source: *Secondary Industries Bulletin*, 1972-73, Papua New Guinea Bureau of Statistics.)

	Class of industry				Total
	Industrial metals machines and conveyances	Food, drink and tobacco	Sawmills, plywood and joinery	Other industries	
Number of factories	342	124	135	101	702
Number of employees—					
Non-indigenous	n.a.	n.a.	n.a.	n.a.	2,997
Indigenous	n.a.	n.a.	n.a.	n.a.	13,201
Total employees	5,402	4,114	4,184	2,500	16,198
Salaries and wages paid	\$'000 12,140	3,898	4,354	4,452	24,844
Value of power, fuel and light, etc.	587	1,085	428	4,548	6,648
Value of materials used	17,379	24,242	8,488	12,008	62,117
Value of production	22,152	17,227	10,013	20,041	69,433
Value of output	40,118	42,554	18,929	36,597	138,198

See footnotes to previous table.

NOTE. Electricity generation is included in 'Other industries'.

Electric power generation and distribution

Electric power generation and distribution

Papua New Guinea Electricity Commission. Responsibility for the prescription of the terms of operation and establishment of the electrical undertakings in Papua New Guinea is vested in the Papua New Guinea Electricity Commission whose headquarters are located at Port Moresby. The Commission was established by the *Papua New Guinea Electricity Commission Ordinance 1961* and on July 1963 acquired the assets of the Electrical Undertakings Branch of the Department of Public Works. In Papua New Guinea the Commission owns and operates the electrical undertakings at Port Moresby, Lae, Rabaul/Keravat, Madang, Wewak, Goroka, Kavieng, Samarai, Yonki and Kieta/Arawa. It also maintains, operates and carries out administrative functions relating to the electrical undertakings at Mount Hagen, Kundiawa and Kainantu. In addition, it has regulatory functions associated with the licensing of electricians and contractors, the control of franchise holders, the approval of appliances and electrical materials for use in Papua New Guinea, and it operates a showroom at Port Moresby for the purpose of selling electrical appliances.

Generating facilities. The Commission owns and operates hydro-electric power stations at Port Moresby, diesel and hydro-electric stations at Goroka and diesel stations at other centres. At Lae, local diesel generation is supplemented by purchases of power in bulk from the Baiune Hydro-Electric Power Stations of Commonwealth New Guinea Timbers Limited. At Kieta the Commission purchases bulk power generated in the Bougainville Copper Pty Limited steam power station at Anewa Bay. The installed capacity of generating plant at centres owned or managed by the Commission at 30 June 1974 was as follows:

Centre	kW
Port Moresby	37,020
Lae	15,280
Rabaul/Keravat	6,395
Madang	5,900
Goroka	(a)3,450
Wewak	2,090
Kavieng	660
Samarai	440
Yonki	1,600
Mount Hagen	(b)2,225
Kundiawa	300
Kainantu	300
Total	75,660

(a) Includes 600 kW hydro. (b) Includes 124 kW hydro.

The total substation capacity within the Commission's system totals approximately 108,700 kVA. In addition, the Commission supplies power to 67 customer-owned substations totalling some 17,400 kVA in capacity. The number of customers served by the Commission at 30 June 1974 was 24,762.

The Commission also maintains the generating plant and distribution system in minor centres acting as an agent of, and from funds provided by, the Government. The installed capacity of continuous generating plant in the 136 minor power stations owned by the Government at 30 June 1974 was approximately 8,400 kW, excluding emergency plant. The centres at Wau, Bulolo, Kupiano, Karkar Island and Banz are supplied by private electrical undertakers under franchise from the Commission.

The demand for power throughout Papua New Guinea continues to increase, although the spectacular growth rate experienced towards the end of the 1960s has now levelled out at approximately 10 per cent per annum. In Port Moresby the installation of two 6 MW sets at Rouna No. 3 Power Station, under construction alongside the existing Rouna No. 1 Station is proceeding. When commissioned in November 1974 this station will boost the area's installed generating capacity to 49 MW.

New diesel plant was commissioned at Lae and at Goroka during the year ended 30 June 1974. The two new 18 cylinder 3.2 MW diesel sets at Lae are the largest yet to be installed by the Commission.

Work is well advanced on the manufacture and installation of three 15 MW generators, representing the first stage of the Ramu No. 1 Hydro-Electric Power Station under construction near Kainantu in the Eastern Highlands. Work is also proceeding on the erection of some 530 kilometres of high-voltage transmission line which will interconnect the new station with the towns of Lae, Madang, Goroka, Mount Hagen and some smaller Highlands centres. This scheme is scheduled for commissioning in mid-1975.

Future development. Papua New Guinea is a mountainous country and high annual rainfalls occur in many areas; thus the basic requirements for hydro-electric development are clearly evident. As in the past, the Commission continues to initiate, and participate in, investigation work to obtain assessments of potentials and feasibilities of hydro-electric schemes. Investigation work already completed indicates a hydro-electric potential within Papua New Guinea of between 20,000 MW and 25 MW.

The potential of the Purari River basin alone is conservatively estimated at 8,000 MW, and office studies and field investigations continue—directed at the 1,800 MW Wabo Dam Site as the first stage of the Purari development.

With Purari power unlikely to be available before 1984, other development is under active investigation by the Commission for further reinforcement of the Port Moresby area. Alternatives include Rouna No. 4 Power Station, the Musa River development (dependent on the availability of a customer to utilise most of the 400 MW potential) and the possible interconnection of the Port Moresby system with Ramu. The Ramu Scheme, too, is capable of development to some 200 MW by the building of a dam (at Yonki) and a further power station, both on the Upper Ramu River.

Trade, transport and communication

Value of imports and exports

PAPUA NEW GUINEA: IMPORTS AND EXPORTS (\$A'000)

(Source: Overseas Trade Statistics, Papua New Guinea Bureau of Statistics.)

	1968-69	1969-70	1970-71	1971-72	1972-73
Total imports(a)	150,455	213,051	254,599	256,386	228,815
Exports—					
Domestic exports	64,896	71,443	77,447	93,039	200,542
Re-exports	10,348	22,117	24,485	34,142	29,072
Total exports	75,244	93,560	101,932	127,181	229,614

(a) Includes value of outside packages.

Country of origin or destination

PAPUA NEW GUINEA: COUNTRY OF ORIGIN OF IMPORTS (\$A'000 f.o.b. port of shipment)

(Source: Overseas Trade Statistics, Papua New Guinea Bureau of Statistics.)

Country of origin	1968-69	1969-70	1970-71	1971-72	1972-73
Australia	82,165	114,332	130,395	141,330	123,507
Canada	1,162	3,012	2,066	2,556	734
Ceylon	341	342	329	328	315
China, People's Republic of	2,758	2,254	2,201	1,905	2,361
France	1,402	1,668	1,031	823	540
Germany, Federal Republic of	3,448	3,933	3,893	4,598	3,459
Hong Kong	4,760	5,654	7,542	6,121	5,389
Italy	746	1,122	895	1,347	868
Japan	17,849	26,393	43,650	38,009	35,647
Malaysia and Singapore	4,357	5,692	6,685	9,648	9,535
Netherlands	913	2,046	2,795	3,828	4,644
New Zealand	841	2,618	2,727	3,169	1,844
Sweden	610	613	640	638	921
United Kingdom	8,574	12,347	9,823	11,415	9,242
United States of America	11,589	22,556	29,585	20,232	20,973
Other countries	8,940	8,469	10,342	10,439	8,834
Total	150,455	213,051	254,599	256,386	228,815

PAPUA NEW GUINEA: COUNTRY OF DESTINATION OF EXPORTS

(\$A'000 f.o.b. port of shipment)

(Source: Overseas Trade Statistics, Papua New Guinea Bureau of Statistics.)

Country of destination	1968-69	1969-70	1970-71	1971-72	1972-73
Australia	29,548	41,295	43,373	53,245	46,059
Germany, Federal Republic of	8,403	7,549	5,377	17,590	53,435
Japan	3,732	8,560	11,813	21,377	81,440
Netherlands	3,869	4,303	2,066	1,537	1,211
United Kingdom	18,769	15,394	19,567	13,264	11,365
United States of America	5,662	11,076	13,337	10,710	11,455
Other countries	5,261	5,383	6,399	9,458	24,649
Total	75,244	93,560	101,932	127,181	229,614

Principal commodities exported

PAPUA NEW GUINEA: PRINCIPAL DOMESTIC EXPORTS

(\$A'000 f.o.b. port of shipment)

(Source: Overseas Trade Statistics, Papua New Guinea Bureau of Statistics.)

Commodity	1968-69	1969-70	1970-71	1971-72	1972-73
Copra	14,804	13,340	14,209	9,392	8,083
Other coconut products(a)	6,361	7,619	9,901	6,476	7,124
Coffee beans	15,531	20,182	20,572	20,458	23,395
Cocoa beans	16,060	15,549	13,643	11,109	11,175
Timber(b)	2,296	3,796	6,401	6,988	8,334
Plywood(c)	2,504	2,529	2,505	212	2,655
Rubber(d)	2,276	2,798	2,297	1,995	1,998
Gold	807	824	720	814	953
Crayfish and prawns	268	659	875	2,051	1,355
Crocodile skins	473	452	264	198	650
Peanuts	469	550	518	616	305
Pyrethrum extract	313	332	286	227	192
Passionfruit juice	122	131	1	288	226
Tea	297	645	1,094	1,500	2,048
Other	2,315	2,037	4,161	30,715	161,122
Total	64,896	71,443	77,447	93,039	229,614

(a) Deseccated coconut, copra oil and copra pellets. (b) Logs and sawn timber. (c) Plywood, veneer and battery veneer. (d) Raw and scrap rubber.

Shipping

In 1972-73 shipping entries (excluding coastal shipping and cargoes) at Papua New Guinea ports totalled 2,581, and 1,526,000 tonnes of cargo were discharged and 1,585,000 tonnes were loaded. Corresponding figures for 1971-72 were 2,301, 1,627,000 and 976,000 respectively.

Regular passenger and freight services operate between Australia and Papua New Guinea. Vessels trading between Australia and the East also call at Papua New Guinea ports, and there are services from continental and United Kingdom ports. Coastal and inter-island shipping services are maintained by vessels operating from the principal ports of the country.

Other forms of transport and communication

Scheduled flights provide a network of air transport throughout Papua New Guinea and regular air services link the country with Australia and neighbouring countries, also with Manila, Hong Kong, Honiara and Jaipura. There were 465 licensed aerodromes in the whole of Papua New Guinea at 14 August 1974, and of these 5 were the responsibility of the Civil Aviation Agency, 142 are Papua New Guinea Government-owned commercial airfields, 108 are privately (i.e. non-Government) owned commercial airfields and 210 are restricted airfields (i.e. non-commercial) for the use of the airfield proprietor only. Much of the internal traffic and freight is carried on a charter basis.

PAPUA NEW GUINEA: AIR TRANSPORT; SUMMARY OF SCHEDULED AND CHARTER SERVICES

Year ended 30 June—	Overseas services(a)			Internal scheduled services(b)			Internal charter services		
	Passengers embarked	Freight	Mail	Passengers embarked	Freight	Mail	Passengers embarked	Freight	Mail
	No.	short tons	short tons	No.	short tons	short tons	No.	short tons	short tons
1969 .	132,557	2,794	534	280,618	4,927	902	106,212	25,618	138
1970 .	166,078	3,298	583	346,440	6,538	975	112,973	25,104	102
1971 .	195,490	3,358	633	425,554	7,358	1,080	216,350	22,372	118
1972 .	206,755	3,325	608	472,641	8,107	1,080	233,144	21,867	104
1973p .	219,616	4,440	667	514,788	8,141	1,085	221,186	20,211	112

(a) Services to ports outside Papua New Guinea.

(b) Internal scheduled airline services only.

At July 1973 there were 10,395* miles of roads in the country. Total motor vehicle registrations (excluding defence force vehicles) at 31 December 1973 were 39,006.

Telephone services operate between the main centres by radio telephone. These together with telex and telegraph services are operated within the country by the Department of Posts and Telegraphs, while overseas traffic is handled by the Overseas Telecommunications Commission. The National Broadcasting Commission broadcasts on medium wave and short wave from Port Moresby, Rabaul, Lae, Goroka, Madang and Wewak. There are 10 other stations broadcasting on short wave only. The Government Office of Information operates transmitters at a number of centres, broadcasting programs in several local languages.

Indigenous labour

Some 120,014 indigenous workers were enumerated in the Department of Labour count of the indigenous labour force as at 30 June 1972. Of the enumerated indigenous labour force, 32 per cent were employed by the Papua New Guinea Government and Australian Government Departments. Private industry employed 68 per cent. The larger industries employed the following percentages of the workforce; rural industry, 30 per cent; building and construction, 10 per cent; commerce, 8 per cent; manufacturing, 8 per cent and transport and storage, 6 per cent.

At 30 June 1974, 2,486 tradesmen had satisfactorily completed their indentures in 41 trades and had been awarded completion certificates. At the same date 1,289 apprentices, including 38 non-indigenes were undertaking indentures under provisions of the Papua New Guinea Apprenticeship Act.

Minimum conditions of employment for Papua New Guinean workers in the private sector are prescribed by statute under the Native Employment Act and minimum rates of pay for these workers are similarly prescribed by Minimum Wage Board Determinations made under the Industrial Relations Act. There exists a number of awards, i.e. registered industrial agreements made between organisations of employers and employees which contain rates of pay and/or conditions of employment which are more liberal than those prescribed by law. It is of interest to note that a non-discriminatory Labour Code is presently being drafted to replace the Native Employment Act.

Wage rates and conditions of employment for Papua New Guinean officers and employees in the public sector are as prescribed in the Public Service (Papua New Guinea) Act, Teaching Service Act, etc., and determinations made under those Acts. Conciliation and arbitration machinery exists for the settlement of disputes in all sectors of employment in the Public Services. Conciliation and Arbitration Act, the Teaching Service Conciliation and Arbitration Act and the Industrial Relations Act.

The minimum national wage is \$8.00 per week for workers directly engaged in the copra, cocoa, tea, coffee, rubber, oil palm, fruit and vegetable growing industries, and the livestock raising industry. For all other workers the national minimum has been determined to be \$10 per week.

* Urban road net component of this figure is incomplete.

General employment awards are in force in 21 towns. The awards apply to all workers employed by members of the Employers Federation regardless of whether or not they are members of a workers organisation (excluded from the awards are those workers directly engaged in primary production, domestic duties, stevedoring operations, shipping operations or apprentices indentured under the Apprenticeship Act). In many of the towns affected the terms of the awards are applied to all workers engaged by all employers and not only members of the Employers Federation due to common rules having been declared under the Industrial Relations Act. In addition to general awards applying to workers in the 21 centres mentioned, there exist awards for specific industries, e.g. stevedoring, timber and logging, building and construction, mining and exploration, shipping.

The minimum wage rate for adult unskilled workers employed in 'Level 1' towns is \$20.00 a week and for those in 'Level 2' towns \$15 a week. Margins for skill are prescribed for semi-skilled and skilled workers. Margins are from \$21.75 to \$35.20 all-up a week in Level 1 areas and \$16.75 to \$35.20 in Level 2 areas. These wages are the result of a Minimum Wages Board Determination handed down on 11 October 1974; the Determination provided for further wage movements at six monthly intervals.

The *Industrial Organizations Act 1962-1970* provides for the registration and control of industrial organisations. At 30 June 1974 there were 51 registered employees' organisations in Papua New Guinea with a total membership of 40,220 workers, of which 39,196 are Papua New Guineans. Thirteen of the above employee organisations have joined together to form the Federation of Workers' Associations of Papua New Guinea. Another 5 have joined together to form a Council of Trade Unions which was registered on 31 May 1973.

The Bureau of Industrial Organisations is a statutory authority established on 23 March 1972. The functions of the Bureau are to provide advice and assistance in the establishment, administration and development of industrial organisations and to provide courses and programs of training for members and officials of industrial organisations.

The Papua New Guinea Labour Advisory Council advises the Minister for National Development and the Government on labour matters generally, and in particular on:

- methods of improving industrial relations,
- measures needed to achieve full and efficient use of the country's manpower,
- methods of bringing about rapid localisation of the work force in the private sector and incentives and other measures to achieve this end,
- measures to improve productivity, and
- trade union development.

Housing

Village housing is constructed to traditional patterns using local materials including bush timber, bamboo, grass, pit-pit and sago palm leaves. Town housing is generally constructed from comparatively expensive imported material including fibrous asbestos cement, aluminium and galvanised iron. The majority of houses are timber framed and made from both locally milled and imported timber.

The rapid growth of urban areas consequent upon increased economic development has created a housing shortage. Major programs are directed towards reducing this shortage.

The Housing Commission was established in 1968, with charter to construct housing and accommodation for all sections of the community. The intention is for the Commission to progressively assume responsibility for all Government houses in its areas of operation. The Commission currently operates in Port Moresby, Lae, Madang, Rabaul and Goroka.

The major urban centres in Papua New Guinea have squatter settlement problems. Squatter houses are mostly of the substandard shanty type. The Administration and the Housing Commission are assisting squatters with self-help housing schemes in both existing squatter settlements and new resettlement areas by providing housing allotments, supervisory staff, building materials at cost price, and basic services. Self-help housing schemes are to be expanded significantly over the next five years, particularly in the major urban centres.

Education and health

Education

Schools in Papua New Guinea are conducted by the Papua New Guinea Government and various Christian missions. In February 1970 the Australian Government adopted the recommendations of the Advisory Committee on Education in Papua New Guinea, and the House of Assembly subsequently passed the Education (Papua New Guinea) Act and the Teaching Service Act. The new legislation provided for the voluntary merger as from 1 July 1970 of mission schools and colleges and teaching staff, with those of the Government, into a unified National Education System and a single National Teaching Service. A representative National Education Board and a number of District Education Boards were created to advise on educational planning and administration at the national and district levels respectively. A Teaching Service Commission was also created to employ teachers and to determine their salaries and conditions of service.

Preliminary figures show that at 30 June 1974 there were 236,060 children enrolled in 1,744 primary schools in the Papua New Guinea national education system; and a further 35,638 enrolled in 178 secondary, technical and vocational schools. Some 7,639 of the 9,451 teachers employed in schools were Papua New Guineans. Qualified teachers are recruited from Australia and overseas, and Papua New Guinea teachers are trained in 11 teachers' colleges conducted by the missions and the Papua New Guinea Government. Of these 10 are primary colleges and one, the Goroka Teachers' College, currently a secondary college will become part of the University of Papua New Guinea in 1975. Post-graduate studies in the form of in-service courses held at one or other of the teachers colleges are available to teachers.

A two year secondary course designed to provide opportunities for further education for children completing a primary course but not selected for secondary or vocational training was introduced in February 1973. The schools called 'Skulanka' will concentrate especially on practical and outdoor activities and are community oriented.

At the post-secondary level of education there are a range of specialist vocational training institutions including two Universities.

The University of Papua New Guinea and the Papua New Guinea University of Technology are autonomous institutions offering courses at both degree and diploma level. The University of Papua New Guinea has faculties of Arts, Law, Science, Education, Medicine and Agriculture. At 31 March 1974 were 1,102 full-time and 629 part-time students enrolled in degree, diploma and post-graduate courses. Of these 1,300 are Papua New Guinean students. In 1973, 139 students graduated from the University of whom 87 were Papua New Guineans. It is estimated that in 1974, 218 students will graduate of whom 120 will be Papua New Guineans.

The University of Technology offers degree and diploma courses in civil, electrical and mechanical engineering, architecture, building, surveying, valuation and chemical technology, cartography and communications. Certificate level courses are also being introduced as needed. There were 800 Papua New Guineans and 46 expatriates enrolled at the University of Technology in 1974. In 1973, 62 students graduated from the University of Technology and it is expected that in 1974, 87 students will graduate.

There are 9 technical colleges in Papua New Guinea offering a wide range of trade apprenticeship and secretarial courses. Certificate level courses are available in the engineering, building, laboratory, catering and hotel administration and commercial fields. The Vudal Agricultural College offers a post-form IV Diploma course in agriculture, and lower level certificate courses are provided at two agricultural training centres. The Bulolo Forestry College offers a diploma course in Forestry.

There are 2 Government and 8 Mission Primary Teachers Colleges. Secondary Teacher training is provided at the Goroka Teachers College and at the University of Papua New Guinea. Most of the other post-secondary institutions are operated by Government departments and include the Co-operative College, Police College, Public Service Board Administrative College, Local Government Council Staff College and the Para Medical Colleges. To ensure that there is co-ordination among post-secondary training institutions and that the future development of post-secondary courses is related to Papua New Guinea manpower needs, the Government established in 1973 an Office of Higher Education responsible to the Minister for Education.

International Training Institute. In November 1971, the Australian Government decided that the Australian School of Pacific Administration at Mosman, Sydney, would be developed as an important centre for training Papua New Guineans, as well as people from other countries. The school has been renamed the International Training Institute.

In its new role, the Institute is supplementing training and undertaking specially structured training which cannot be better or more conveniently provided in Papua New Guinea or elsewhere in Australia. The Institute is concentrating on administrative and specialised training to prepare Papua New Guinean Public Servants.

The Institute program provided for over 330 Papua New Guineans to attend courses during 1974. Of this number, 120 have undertaken vocationally oriented courses of 8 months duration to upgrade their qualifications for advancement within the Papua New Guinea Public Service. The balance of trainees undertook shorter courses in advanced administrative and executive development training, industrial relations and local government practice.

Health

The Department of Public Health of Papua New Guinea has the general oversight of all medical and dental services. The Department has the following seven functional divisions: medical services, preventive medicine, medical training, maternal and child health, dental education, administrative services, and mental health. To facilitate administration and co-ordination of the field services of the Department of Public Health, Papua New Guinea is divided into four geographical regions: the New Guinea Mainland, Highlands, New Guinea Islands Region and Papua.

Finance

Revenue and expenditure

PAPUA NEW GUINEA: REVENUE AND EXPENDITURE (\$'000)

	1970-71	1971-72	1972-73	1973-74	1974-75(a)
REVENUE					
Civil aviation . . . . .	..	..	..	225	250
Customs	30,960	33,135	34,141	40,182	45,410
Licences	1,038	1,440	1,535	1,647	1,703
Stamp duties	683	964	833	723	750
Postal	(b)	(b)	(b)	(b)	(b)
Land revenue	1,098	1,200	1,566	1,568	1,635
Mining receipts	241	153	1,859	3,541	4,697
Fees and fines	567	647	845	1,114	1,255
Health revenue	676	725	658	592	594
Forests	923	938	1,203	1,706	1,860
Agriculture	1,021	1,053	1,233	1,638	2,032
Public utilities	1,653	1,791	1,812	1,428	930
Direct taxation	29,375	36,117	38,229	52,761	63,500
Miscellaneous	5,953	6,708	9,153	24,950	28,700
Recoverable services	9,478	10,382	..	..	..
Recoveries—A.S.A.G. expenditure . . . . .	..	..	..	4,292	4,850
<i>Total internal revenue(c)</i>	83,666	95,253	93,067	136,368	158,166
General loans	15,587	25,540	27,600	32,040	32,000
Grant by Australian Government	(d)70,000	(d)69,875	(d)82,863	(d)133,069	89,172
International loans	2,620	8,131	7,869	9,347	20,612
Australian Government loans	6,300	11,700	4,400	2,200	..
Special Loan—Purchase of Equity in Bougainville Copper Ltd	12,500	..	..	..	..
Consolidated revenue	203	..	367	..	8,300
Budget equalisation reserve fund . . . . .	..	..	..	..	3,000
Total revenue	190,876	210,499	216,166	313,024	311,250

For footnotes see end of table next page.

PAPUA NEW GUINEA: REVENUE AND EXPENDITURE—*continued*
(\$'000)

	1970-71	1971-72	1972-73	1973-74	1974-75(a)
EXPENDITURE					
Defence Department . . . . .	..	..	..	8	9,489
Special appropriations	13,295	13,943	14,174	21,837	22,617
Administrator(e)	6,491	8,056	9,700	..	..
High Commissioner(f) . . . . .	..	..	..	65	53
Chief Minister and Development Administration(g) . . . . .	..	..	..	9,593	12,968
Foreign Relations and Trade(h) . . . . .	..	..	..	2,792	6,912
House of Assembly	409	377	393	392	671
Information and Extension Services(i)	1,171	1,600	1,603	..	..
Public Service Board	1,155	1,367	2,290	3,002	3,821
Finance (formerly Treasury)	4,928	3,948	3,800	4,146	3,720
Public health	13,231	14,491	16,242	19,456	24,146
Interior(j)	5,297	7,089	9,937	15,037	11,977
Labour	741	880	1,037	943	1,114
Education	17,939	20,758	25,230	29,657	38,269
Agriculture, stock and fisheries	7,209	7,983	9,081	9,791	13,561
Royal Papua New Guinea Constabulary	7,689	7,908	9,627	10,803	14,330
Law	3,705	4,556	2,107	1,776	2,792
Lands, surveys and mines	4,780	4,398	4,115	5,762	8,865
Forests	2,082	2,367	2,509	2,532	4,219
Posts and Telegraphs	6,774	6,519	4,791	3,118	2,655
Trade and industry(e)	817	647	754	..	..
Transport(k)	2,504	2,984	3,351	12,508	18,162
Business development(l)	377	865	1,012	998	1,518
Stores for resale	5,368	6,410	..	..	..
Public works	5,564	5,677	5,594	5,149	5,125
General overheads	2,540	2,817	2,220	2,281	3,239
General maintenance	15,698	17,040	18,211	22,158	24,163
Capital works and services	29,675	40,000	33,392	27,870	32,500
Other institutions	15,022	22,868	30,313	49,727	53,094
Motor transport	3,482	3,659	..	..	..
Government printer	417	538	..	..	..
Purchase of investments	12,500	..	..	2,500	1,000
Special advance to the Secretary of Finance . . . . .	..	..	4,683	..	..
Capital expenditure on transferred functions . . . . .	..	..	..	34,751	270
Reserves . . . . .	..	..	..	6,000	..
Total	(m)190,860	(m)209,745	216,166	304,651	321,250

(a) Estimated. (b) Postal Revenue is retained by the Department of Posts and Telegraphs in accordance with the change to commercial accounting for that Department. (c) Refunds of revenue have been deducted from gross collections by items. (d) As from 1970-71, the following additional amounts which were not part of the Papua New Guinea Budget, were provided by the Australian Government: for Australian Staffing Assistance (salaries and allowances) in 1970-71, \$31.5 million was provided; in 1971-72 \$38.3 million and in 1972-73 \$43.3 million. Also \$0.8 million was provided for Termination and Retirement Benefits, and \$1.1 million for Emergency Food Relief in the Highlands. In 1973-74, \$49.9 million will be provided by the Australian Government for Australian staffing assistance, and \$17.8 million for Termination and Retirement Benefits. (e) Abolished in 1972-73. (f) New Office established in 1972-73, formerly included in Department of the Administrator. (g) New Department established in 1972-73 which includes former sections of the Department of the Administrator. (h) New Department established in 1972-73 which includes former sections of the Department of Trade and Industry and the Department of the Administrator. (i) Information and Extension Services has now become the Office of Information within the Department of the Chief Minister. (j) Formerly the Department of Social Development and Home Affairs with the exception of one section which has been absorbed by the Department of the Chief Minister and Development Administration. (k) New Department established in 1971 from former sections of Departments of the Administrator, Treasury and Trade and Industry. (l) New Department established in 1970-71 which includes former sections of Department of Trade and Industry. (m) Amount reduced by taxation refunds and refunds of revenue.

Taxation

The main forms of taxation are income tax and import duties. *Income Tax* was imposed on 1 August 1959 to operate from 1 July 1959. In the case of individuals two different methods of calculating tax payable are used. Tax on taxable incomes has applied since 1 July 1959 and is calculated on a similar basis to that in Australia. Income Tax is about two thirds of the tax payable on the same taxable income in Australia. Tax on chargeable income was introduced to apply from 1 January 1967 and has supplanted a previous *Personal Tax* of \$4 payable by all males eighteen years and over. Chargeable income consists of gross income less expenses directly incurred in earning the income. No deductions are allowable for dependants or any other private expenditure such as medical or education expenses. The tax is a flat rate of 2.00 cents in the \$1 applying on income above \$416 with a maximum of \$20.00. The two methods of calculating tax payable are complementary, the method applied to any particular taxpayer being the one resulting in the greater amount of tax payable. Companies are taxed on a similar basis to that in Australia, and deductions allowable are generally comparable to those in Australia. From 1 July 1959 to 30 June 1967 the rates on public and private companies differed, public companies being taxed at a flat rate of 20 cents in the \$1 and private companies at 12.5 cents in the \$1 for the first \$10,000 and 17.5 cents in the \$1 for the remainder. From 1 July 1971 a flat rate of 25 cents in the \$1 applies to all companies, and from the same date private companies are no longer required to distribute a portion of their income in dividends each year. As from 1 July 1972, companies paying a dividend to shareholders resident outside Papua New Guinea are required to deduct and pay a dividend withholding tax of 15 per cent. To encourage industry in Papua New Guinea certain companies manufacturing products new to Papua New Guinea may be granted complete tax exemption for the first five years of operation under the *Industrial Development (Incentive to Pioneer Industries) Ordinance 1965-1969*. This includes exemptions from the dividend withholding tax. In addition to income taxes Local Government Councils are empowered to levy local taxes for the purpose of providing for local services carried out by the councils. These taxes are set off against the taxpayers' personal taxation.

Papua New Guinea has a single column tariff applying to all goods regardless of country of origin. The present *Customs Tariff* provides high revenue rates on imports of ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods, and jewellery, but allows entry duty free or at a low rate of duty on most necessities affecting living and building costs. Under the *Customs Tariff*, plant, machinery and chemicals to be used mainly for industrial and developmental purposes are generally duty-free. A by-law covers goods imported by passengers. No preferential rates are specified in the schedule. Export duties were imposed on prescribed primary products at the rate of 2.5 per cent and prescribed unprocessed natural resources at the rate of 5 per cent as from 18 November 1974.

Provision is made in the *Australian Customs Tariff* for the free entry into Australia of certain goods produced in and imported direct from Papua New Guinea (see Chapter Overseas Transactions). In addition, goods produced or manufactured in Papua New Guinea and imported directly into Australia are exempted from primage duty.

Effective from 2 September 1970, a general levy of 2.5 per cent was imposed, subject to certain exemptions, on all goods imported into Papua New Guinea. Exemptions apply in the main to goods imported by the Administration and/or the Australian Government and their statutory authorities, goods imported for the use of charitable organisations and goods used for educational, health or medical services or for scientific research.

This levy, although administered by the Comptroller of Customs, is not a Customs Duty and does not affect rates of duty imposed under the *Customs Tariff*.

Banking

Prior to November 1973, several Australian banks operated branches in the main centres of Papua New Guinea and their operations formed part of the Australian banking system under the supervision of the Reserve Bank of Australia. Full trading and savings bank facilities were provided by the following trading banks and their associated savings banks: the Commonwealth Trading Bank of Australia, the Bank of New South Wales, Australia and New Zealand Banking Group and the National Bank of Australasia Ltd.

Since 1 November 1973, the operations of banks in Papua New Guinea have been governed by Papua New Guinea banking legislation in the place of Australian legislation, and the banking system has been subject to supervision by the Bank of Papua New Guinea (the central bank). Under the Papua New Guinea banking legislation there is no distinction between savings banking and trading banking. Most of the assets and operations of the Commonwealth Banking Corporation in Papua New Guinea were taken over in April 1974 by the Papua New Guinea Banking Corporation. In October 1974, the assets and operations of the National Bank of Australasia Ltd were taken over by its subsidiary, Bank of South Pacific Ltd.

Papua New Guinea at present uses Australian currency, but a new currency will be introduced in 1975. Since 1 November 1973, exchange control has been administered by the Bank of Papua New Guinea through provisions of the Foreign Exchange Regulations. At present, exchange control does not apply to dealings with Australia.

The average level of deposits with commercial banks in Papua New Guinea for the year 1972-73 was \$95,502,000; and the average level of loans, advances and bills discounted was \$118,406,000.

The Papua New Guinea Development Bank was established in 1967 to provide finance for primary production, manufacturing and commerce. In early 1972 the Papua New Guinea Investment Corporation was established to acquire equity interests in major enterprises in Papua New Guinea for disposal to Papua New Guinea institutions and individuals.

Co-operative societies

Co-operatives are under the guidance of the Department of Business Development. The present structure of the co-operative movement is based on primary societies, associations of societies, regional unions and a Territory-wide Federation formed by the unions. At 31 March 1972 there were 351 primary societies with 141,000 members. Turnover exceeded \$7 million including \$5 million from produce. In addition there are service organisations for wholesale trade, insurance and shipping.

A Co-operative College has been set up near Port Moresby with United Nations Development Programme and International Labour Organisation assistance. The first buildings were opened in May 1971.

The functions of the College are to provide business training for Papua New Guineans and to train Government officers for the Department of Business Development. The College has living accommodation and classroom facilities for 130 students. It is expected that facilities will be enlarged in 1975 to allow for a 40 per cent increase in students.

HEARD ISLAND AND McDONALD ISLANDS

These islands, about 4,100 kilometres south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26 December 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the *Heard and McDonald Islands Act* 1953. In 1968, the responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply, and in 1972 the responsibility was transferred to the Minister for Science.

In December 1947 an Australian scientific station was established on Heard Island, and meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since visited the island from time to time. Heard Island is about 43 kilometres long and 20 kilometres wide. The McDonald Islands are 43 kilometres to the west of Heard Island. They are small, rocky and precipitous. The first known landing on McDonald Island, the largest of the group of the same name, took place on 27 January 1971 when two members of the Australian National Antarctic Research Expeditions (ANARE) paid a short visit on their way to the Heard Island station.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the islands and territories other than Terre Adélie situated south of 60° S latitude and lying between 160° E longitude and 45° E longitude. The Order came into force with a Proclamation issued by the Governor-General on 24 August 1936 after the passage of the *Australian Antarctic Territory Acceptance Act* 1933. The boundaries of Terre Adélie were definitively fixed by a French Decree of 1 April 1938 as the islands and territories south of 60° S latitude lying between 136° E longitude and 142° E longitude. The *Australian Antarctic Territory Act* 1954 declared that the laws in force in the Australian Capital Territory, are so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory. In 1968, responsibility for the administration of this Act was transferred from the Minister for External Affairs to the Minister for Supply, and in 1972 the responsibility was transferred to the Minister for Science.

On 13 February 1954 the Australian National Antarctic Research Expeditions (ANARE) established a station on MacRobertson Land at latitude 67° 36' S and longitude 62° 53' E. The station was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is a centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13 January 1957 at latitude 68° 35' S and longitude 77° 58' E. The station was named in honour of the late Captain John King Davis, second-in-command of two of Mawson's expeditions and master of several famous Antarctic ships. The station was temporarily closed on 25 January 1965 and re-opened on 15 February 1969. On 4 February 1959 the Australian Government accepted from the United States Government custody of Wilkes station, which was established by the United States on 16 January 1957 on Vincennes Bay at latitude 66° 15' S and longitude 110° 32' E. The station was named in honour of Lieutenant Charles Wilkes who commanded the 1838-42 United States expedition to the area. The station was closed on 19 February 1969 when activities were transferred to Casey station built about 2 kilometres south of Wilkes. Casey station, which was opened on 19 February 1969, was named in honour of Baron Casey, former Governor-General of Australia, in recognition of this long association with Australia's Antarctic effort.

On 1 December 1959 Australia signed the Antarctic Treaty with Argentina, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the U.S.S.R., the United Kingdom, and the United States of America, Poland, Czechoslovakia, Denmark, the Netherlands and Romania have subsequently acceded to the Treaty. The Treaty reserves the Antarctic area south of 60° S latitude for peaceful purposes, provides for international co-operation in scientific investigation and research, and preserves, for the duration of the Treaty, the *status quo* with regard to territorial sovereignty, rights and claims. The Treaty entered into force on 23 June 1961. Since then the Antarctic Treaty powers have held several consultative meetings under the Treaty, the first at Canberra in July 1961.

COCOS (KEELING) ISLANDS

General description

The Cocos (Keeling) Islands, two separate atolls comprising some twenty-seven small coral islands with a total area of about 14 square kilometres, are situated in the Indian Ocean in latitude 12° 05' S and longitude 96° 53' E. They lie some 2,750 kilometres north-west of Perth and 3,700 kilometres almost due west of Darwin.

The main islands of the Territory are West Island, the largest, about 10 kilometres long, on which are the aerodrome and most of the European community; Home Island, the headquarters of the Clunies-Ross Estate; Direction Island; South Island; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about 24 kilometres to the north of the group and has no inhabitants.

Main settlements are on West Island and Home Island. The group of atolls is low-lying, flat, and thickly covered by coconut palms, and surrounds a lagoon which has an anchorage in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times, and meteorological reports from the Territory are particularly valuable for those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 21°C and 32°C, and the average yearly rainfall is about 2,180 mm. There are occasional violent storms. The estimated population at 30 June 1973 was 654.

History and administration

Summarised particulars of the discovery of the islands and their history up to 1946, when they became a dependency of the Colony of Singapore, are given in Year Book No. 51, page 140, and in earlier issues. On 23 November 1955 the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act entitled the Cocos Islands Act 1955 and by the *Cocos (Keeling) Islands Act 1955* of the Australian Parliament whereby the islands were declared to be accepted by Australia as a Territory to be known as the Territory of Cocos (Keeling) Islands.

Responsibility for the administration of the Territory rests with the Special Minister of State. The first Official Representative was appointed on 23 November 1955 to take charge of the local administration of the Territory. Under the *Official Representative Ordinance 1955-1961* of the Territory, the Official Representative is given such powers and functions in relation to the Territory as are delegated to him by the Minister under the *Cocos (Keeling) Islands Act 1955-1966* or are otherwise conferred on him under that Act or by or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the *Cocos (Keeling) Islands Act 1955-1966*. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

Transport and communication

There is an airport at West Island of international standards under the control of the Australian Department of Transport. There is a regular 3 weekly charter service Perth-Cocos (Keeling) Islands-Christmas Island-Perth. Although there is no regular shipping service, vessels from Australia and Singapore call at intervals. A radio teletype link with Perth is maintained by the Administration. Local postal and telephone services exist, and a non-commercial broadcasting station operates.

CHRISTMAS ISLAND

Christmas Island is an isolated peak situated in the Indian Ocean in latitude 10° 25' S, longitude 105° 40' E. It is approximately 360 kilometres south from Java Head at the south entrance to Sunda Strait, 1,300 kilometres from Singapore and 2,600 kilometres from Fremantle. Christmas Island covers an area of about 140 square kilometres. It consists of a central plateau about 150 to 250 metres above sea level with several prominent rises up to 360 metres high. The plateau descends to the sea in a series of steep slopes alternating with terraces. Sea cliffs over 200 metres high run along a considerable portion of the coastline except in a few places, the chief of which is Flying Fish Cove, where the principal settlement is located and which is also the only anchorage.

The climate is pleasant, and the prevailing winds come from the south-east to east-south-east from May to December, but from then to April (the wet season) they occasionally shift round to between north and west. The average yearly rainfall is about 1,930 mm with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 27°C, and does not vary greatly throughout the year.

The economy of the Territory is based entirely on the mining and extraction of phosphate. Because of the nature of the land there appears little prospect of establishing any other economic activity.

At 30 June 1973 the estimated population was 2,884 (1,952 males and 936 females).

Education

The Christmas Island education system comprises a primary school and a secondary school following the Singapore curriculum, a primary school following an Australian curriculum and a technical training centre. The Singapore curriculum schools provide classes to Form 4 level and scholarships are available for students wishing to proceed to Singapore or Australia for education beyond that level.

At 30 June 1973, 499 children were enrolled at the primary and secondary schools following the Singapore curriculum. The combined staff establishment consisted of a headmaster, two senior teachers, 29 trained teachers and 1 assistant teacher. The Australian curriculum primary school had 60 pupils at 30 June 1973, with teachers seconded from the Western Australian Department of Education. There is also a Technical Training Centre, which opened in 1969.

History and administration

Summarised particulars of the history of Christmas Island up to its administration by the United Kingdom as a separate Crown Colony from 1 January 1958, pending transfer to Australia, are given in Year Book No. 51, page 141, and in earlier issues. On 1 October 1958 the island was transferred to Australia by the *Christmas Island Act* 1958. Responsibility for the administration and government of the Territory rests with the Special Minister of State, and day to day affairs on the island are administered by an Administrator under delegation from the Minister. The laws which were in force on the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia. They may be amended or repealed by Ordinances or by laws made under Ordinances of the Territory.

Phosphate deposits

The only commercial activity carried out is the mining of phosphate. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission. Phosphate is mined at several locations on the Island. During 1972-73, 1,225,170 tonnes of phosphate were exported to Australia and New Zealand. In addition 134,698 tonnes of phosphate dust were exported to South-East Asia and 8,269 tonnes went to Australia.

Transport and communication

Transport to and from the island is maintained by vessels operated under charter by the Christmas Island Phosphate Commission. One vessel makes regular trips between Christmas Island and Singapore, and other vessels carry phosphate to Australian ports and New Zealand.

A post office is staffed and operated by the Administration. The British Phosphate Commissioners operate an internal telephone system which comprises five automatic exchanges and three small subscriber-attended exchanges. A radio station is used for messages via Perth and Singapore and for communication with ships at sea. A limited broadcasting station also operates.

Regular air charter flights commenced in 1974. The charter operates every 3 weeks from Perth in Australia through the Cocos (Keeling) Islands.

CORAL SEA ISLANDS

The Coral Sea Islands were declared to be a Territory of Australia by the *Coral Sea Islands Act* 1969 which was slightly amended in 1973. The scattered reefs and islands, often little more than sandbanks, spread over a sea area of 1 million square kilometres with only a few square kilometres of actual land area, between the Great Barrier Reef, latitude 12°S and longitude 157° 10' E. The Territory which is administered by the Minister for the Capital Territory, has no permanent inhabitants. There is a manned weather station on Willis Island, some 500 kilometres east of Cairns and a number of unmanned facilities are operated by the Australian Government.

CHAPTER 31

MISCELLANEOUS

This chapter comprises statistics and other descriptive information not directly related to the subjects of the preceding chapters, or which it is convenient to assemble in single sections, arranged as follows: Value of Australian primary production; Indexes of agricultural production; Consumption of foodstuffs and beverages; Internal trade (retail and wholesale trade); Enterprise statistics; Industry concentration statistics; Interstate trade; Statistical organisation in Australia; Statistical and other official publications of Australia.

VALUE OF AUSTRALIAN PRIMARY PRODUCTION

The figures published in the following tables have been compiled by the Statisticians in the various States from the latest and best data available and are on a substantially uniform basis. However, marketing costs are not on a completely comparable basis between States and, in addition, accurate information is difficult to obtain for many items. In consequence, differences between States in the relationships of local to gross value should be treated with some reserve.

Explanation of terms used

The following is a brief explanation of the terms used.

- (a) *Gross value of production* is the value placed on recorded production at the wholesale price realised at the principal markets. In general, the 'principal markets' are the metropolitan markets in each State. In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.
- (b) *Local value* (i.e. gross production valued at the place of production) is ascertained by deducting marketing costs from the gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.
- (c) *Net value of production* represents local value less value of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays, and other costs. No deductions have been made for depreciation or certain maintenance costs, as particulars are not available for all States. The net value of production is the only satisfactory measure to use when comparing or combining the value of primary industries with those of other industries.

Value of primary production, Australia

**GROSS, LOCAL AND NET VALUE OF PRODUCTION OF
PRIMARY INDUSTRIES (EXCLUDING MINING): AUSTRALIA 1972-73**
(\$'000)

<i>Industry</i>	<i>Gross production valued at principal markets</i>	<i>Local value— gross production valued at place of production</i>	<i>Net value of production (without deduction of depreciation or maintenance)</i>
Crops	1,598,050	1,374,471	1,156,908
Pastoral	2,542,408	2,362,783	2,070,188
Dairying	631,109	588,181	445,826
Poultry	203,942	181,211	76,136
Bee-farming	8,424	7,670	(a)7,670
<i>Total, agriculture</i>	<i>4,983,937</i>	<i>4,514,317</i>	<i>3,756,722</i>
Forestry	160,665	145,011	(a)145,011
Fishing	101,552	93,104	(b)90,777
Hunting	12,051	10,836	(a)10,836
<i>Total, forestry, fishing and hunting</i>	<i>274,268</i>	<i>248,951</i>	<i>246,624</i>
<i>Total all primary (excluding mining)</i>	<i>5,258,205</i>	<i>4,763,268</i>	<i>4,003,346</i>

(a) Local value. (b) Local value, except for New South Wales and Western Australia.

Gross value of primary production

GROSS(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES (EXCLUDING MINING)
1972-73
(\$'000)

<i>Industry</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Crops	436,206	282,696	452,137	177,768	203,417	43,693	1,773	360	1,598,050
Pastoral	840,790	607,812	399,232	270,233	321,111	72,357	28,708	2,165	2,542,408
Dairying	176,991	263,161	78,436	47,808	34,022	29,914	252	525	631,109
Poultry	89,032	49,099	29,020	14,274	15,069	5,822	594	1,032	203,942
Bee-farming	2,482	2,142	815	1,712	1,045	220	..	8	8,424
<i>Total, agriculture</i>	<i>1,545,501</i>	<i>1,204,910</i>	<i>959,640</i>	<i>511,795</i>	<i>574,665</i>	<i>152,006</i>	<i>31,326</i>	<i>4,094</i>	<i>4,983,937</i>
Forestry	43,531	36,792	22,715	10,683	14,996	30,922	35	992	160,665
Fishing	21,165	11,556	13,375	15,915	28,347	6,577	4,617	..	101,552
Hunting	3,335	3,225	2,323	582	2,132	415	39	..	12,051
<i>Total, forestry, fishing and hunting</i>	<i>68,031</i>	<i>51,573</i>	<i>38,413</i>	<i>27,180</i>	<i>45,474</i>	<i>37,914</i>	<i>4,691</i>	<i>992</i>	<i>274,268</i>
<i>Total, all primary (excluding mining)</i>	<i>1,613,532</i>	<i>1,256,483</i>	<i>998,053</i>	<i>538,975</i>	<i>620,139</i>	<i>189,920</i>	<i>36,017</i>	<i>5,086</i>	<i>5,258,205</i>

(a) See text on page 1091.

**GROSS(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES (EXCLUDING MINING)
PER HEAD OF POPULATION, STATES, 1972-73
(\$)**

<i>Industry</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.(b)</i>
Crops	92.90	78.99	238.39	148.69	191.15	110.64	122.15
Pastoral	179.06	169.82	210.50	226.02	301.74	183.23	194.33
Dairying	37.69	73.53	41.36	39.99	31.97	75.75	48.24
Poultry	18.96	13.72	15.30	11.94	14.16	14.74	15.59
Bee-farming(a)	0.53	0.60	0.43	1.43	0.98	0.56	0.64
<i>Total, agriculture</i>	<i>329.14</i>	<i>336.65</i>	<i>505.98</i>	<i>428.07</i>	<i>540.00</i>	<i>384.92</i>	<i>380.94</i>
Forestry	9.27	10.28	11.98	8.94	14.09	78.30	12.28
Fishing	4.51	3.23	7.05	13.31	26.64	16.65	7.76
Hunting	0.71	0.90	1.22	0.49	2.00	1.05	0.92
<i>Total, forestry, fish- ing and hunting</i>	<i>14.49</i>	<i>14.41</i>	<i>20.25</i>	<i>22.73</i>	<i>42.73</i>	<i>96.01</i>	<i>20.96</i>
Total, all primary (excluding mining)	343.63	351.06	526.23	450.80	582.73	480.93	401.91

(a) See text on page 1091. (b) Includes Northern Territory and Australian Capital Territory.

**GROSS(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES (EXCLUDING MINING)
AUSTRALIA
(\$'000)**

<i>Industry</i>	<i>1968-69</i>	<i>1969-70</i>	<i>1970-71</i>	<i>1971-72</i>	<i>1972-73</i>
Crops	1,717,268	1,494,419	1,511,982	1,607,786	1,598,050
Pastoral	1,536,817	1,541,632	1,328,908	1,564,456	2,542,408
Dairying	513,742	547,239	566,989	607,323	631,109
Poultry	176,167	184,401	195,322	200,715	203,942
Bee-farming	3,021	4,824	4,702	6,456	8,424
<i>Total, agriculture</i>	<i>3,947,014</i>	<i>3,772,515</i>	<i>3,607,902</i>	<i>3,986,736</i>	<i>4,983,937</i>
Forestry	119,543	125,026	137,168	147,852	160,665
Fishing	62,994	63,296	78,103	92,657	101,552
Hunting	12,083	12,548	10,152	10,185	12,051
<i>Total, forestry, fishing and hunting</i>	<i>194,620</i>	<i>200,870</i>	<i>225,423</i>	<i>250,694</i>	<i>274,268</i>
Total, all primary (excluding mining)	4,141,634	3,973,385	3,833,325	4,237,430	5,258,205

(a) See text on page 1091.

INDEXES OF AGRICULTURAL PRODUCTION

(In previous issues of the Year Book, these indexes were referred to as 'indexes of farm production'). The two tables in this section present indexes of quantum of agricultural production, and unit value of agricultural production, by industrial groups.

Indexes of quantum of agricultural production

The quantum indexes of crops (excluding pastures), livestock slaughterings and livestock products are indexes of the gross value of production of the included products at constant prices. The quantum index of agricultural output is an index of value of agricultural output at constant prices. The latter index relates to that part of agricultural production sold outside the agricultural sector and excludes the production of seed, feed and fodder consumed or retained on farms.

Indexes of the value of agricultural production and output at constant prices are measures of change in value after the direct effects of price changes have been eliminated. Measures of this type are, of necessity, subject to approximations and assumptions and they should not be interpreted in any precise quantitative sense.

In the main, the method used in compiling the quantum indexes has been to apply to current year quantities for individual farm products the corresponding average unit gross values for the weighting base period. Aggregates at constant prices (e.g. for livestock slaughterings) are then obtained by

summation and converted to index numbers by dividing by the corresponding values in the reference base period. Indexes so derived may be described as fixed weights indexes, the weights of individual products in the aggregate measures being determined by their relative prices in the weighting base period. As prices do not all move in the same proportion or even in the same direction the choice of a particular weighting base period may affect the trend of the indexes.

In the original published series the period 1923-24 to 1927-28 was adopted as the base for re-valuing each agricultural product. This series, using the fixed weights: average unit values for the period 1923-24 to 1927-28; re-computed to the reference base: average 1936-37 to 1938-39 = 100; was published in earlier issues of the Year Book (see No. 43, page 1051). For 1936-37 and later years the original series was replaced in December 1952 by a revised series in which the fixed weights of average unit values for the period 1936-37 to 1938-39 were used (with reference base: average 1936-37 to 1938-39 = 100). The regimen used for that revised series was extended and modified to include all agricultural products (as defined by Australian Statisticians). Certain other refinements were incorporated in those revised indexes, the principal of which was the omission of quantities of crops fed to livestock in Australia in calculating the "all farming" index.

In this issue of the Year Book the above series has been replaced by the revised series introduced in March 1974, for 1959-60 and later years, using the reference base: year 1968-69 = 100; and using as fixed weights: average unit values for the period 1968-69 to 1970-71. The new series provides greater commodity detail, and involves some changes in previous classifications. In addition to crops marketed for livestock feeding in Australia, feed and seed consumed or retained on farms have been excluded from calculation of the agricultural output index.

INDEXES OF QUANTUM OF AGRICULTURAL PRODUCTION AND OUTPUT, AUSTRALIA^(a)

BASE OF EACH INDEX: YEAR 1968-69 = 100

	1959-60	1969-70	1970-71	1971-72	1972-73
Crops (excluding pastures)—					
Wheat for grain	37.1	71.2	53.2	57.4	43.2
Barley for grain	47.1	103.2	142.8	186.3	104.9
Oats for grain	49.7	72.9	94.3	74.6	43.0
Other grain cereals	75.7	142.0	241.0	219.5	192.0
Sugar cane ^(b)	49.4	84.7	94.4	103.6	101.2
Fruit and nuts	69.7	105.6	118.2	106.4	110.6
Grapevines	86.9	138.8	105.4	145.6	105.5
Vegetables	74.7	100.9	100.4	110.5	99.1
All other crops	48.9	93.1	96.1	111.0	88.8
<i>Crops (excluding pastures)</i>	<i>49.7</i>	<i>86.8</i>	<i>85.3</i>	<i>91.9</i>	<i>75.4</i>
Livestock slaughterings—					
Cattle and calves ^(c)	82.2	107.7	111.7	124.4	153.3
Sheep and lambs	81.6	109.0	120.0	135.5	101.8
Pigs	63.0	107.5	112.0	119.9	145.6
Poultry	41.7	113.4	138.8	149.5	147.1
<i>Livestock slaughterings^(d)</i>	<i>77.4</i>	<i>108.3</i>	<i>115.2</i>	<i>127.9</i>	<i>142.1</i>
Livestock products—					
Wool	86.3	104.5	100.2	99.1	83.4
Milk	90.1	106.5	104.1	101.9	103.0
Eggs	79.1	105.5	116.7	113.7	107.0
<i>Livestock products^(e)</i>	<i>87.1</i>	<i>105.4</i>	<i>103.0</i>	<i>101.4</i>	<i>92.1</i>
Agricultural output^(f)	69.4	98.5	97.8	104.0	96.9

(a) Indexes of value of constant prices (i.e. at average unit gross value of the 3 years ended 1970-71). (b) Sugar cane cut for crushing and planting. (c) Includes dairy cattle slaughtered. (d) Component series based on carcass weight. (e) Includes honey and beeswax. (f) Excludes seed, feed and fodder consumed or retained on farms.

Indexes of unit gross value of agricultural production

(In previous issues of the Year Book, these indexes were referred to as 'indexes of farm production'.)

The unit value indexes of crops (excluding pastures), livestock slaughterings and livestock products shown in the following table measure changes in the unit gross values of the included products. The unit value index of agricultural output measures changes in unit gross values of products sold outside the agricultural sector.

The unit gross values used for each product in each year in the group indexes are obtained by dividing gross value of production by the quantity produced or marketed in that year. In the agricultural output index, the exclusion of production of seed and fodder crops retained within the farm sector may alter these unit values slightly (as well as the weights) but otherwise the unit values are the same.

The unit gross values are average amounts realised at 'principal markets' for the total quantities of relevant products produced or marketed in each year. In general, the 'principal markets' are metropolitan markets in each State. The unit gross values relate to agricultural products produced or marketed in a particular year irrespective of the period in which payment is received by producers.

These indexes are not price indexes in the generally accepted sense because they measure not only the effects of price changes, but reflect also the effects of variations in the quality and composition of the products.

The indexes have been calculated by the fixed weights aggregative method. In the original published series of 'Production Price Index Numbers' the average quantities of the relevant commodities produced in the period 1923-24 to 1927-28 were used as fixed weights. This series, re-computed to the price base: average 1936-37 to 1938-39 = 100, was published in earlier issues of the Year Book (see No. 43, page 1050). For 1936-37 and later years the original series was replaced in December 1952 by a revised series in which average quantities of each product marketed during the period 1946-47 to 1950-51 were used as fixed weights (with price base: average 1936-37 to 1938-39 = 100). In that revised series the regimen was extended and modified to include all agricultural products (as defined by Australian Statisticians). Certain other refinements were also incorporated in those revised indexes, the principal of which was the omission from the weights used for the 'all farming' index of quantities of crops marketed for livestock feeding in Australia.

In this issue of the Year Book the above series has been replaced by the revised series introduced in March 1974, for 1959-60 and later years, using the reference base: year 1968-69 = 100, and using as fixed weights: average quantities of each product marketed during the period 1968-69 to 1970-71. The new series provides greater commodity detail, and involves some changes in classifications. In addition to quantities of crops marketed for livestock feeding in Australia, feed and seed consumed or retained on farms has been excluded from the weights used for the agricultural output index.

The series 'Farm products for food use: indexes of quantum' as published in previous year books, has now been discontinued.

INDEXES OF UNIT GROSS VALUE OF AGRICULTURAL PRODUCTION AND OUTPUT AUSTRALIA^(a)

Base of each Index: Year 1968-69 = 100.

	1959-60	1969-70	1970-71	1971-72	1972-73
Crops (excluding pastures)—					
Wheat for grain	100.3	101.8	103.9	109.1	109.4
Barley for grain	100.1	90.7	110.0	94.5	122.8
Oats for grain	126.0	77.8	97.9	85.3	124.7
Other grain cereals	88.1	95.3	87.7	86.6	123.7
Sugar cane ^(b)	114.2	112.5	117.8	128.3	145.8
Fruit and nuts	90.8	109.9	101.5	106.3	124.5
Grapevines	73.8	94.5	96.5	102.8	138.9
Vegetables	88.8	99.1	121.9	106.1	131.9
All other crops	107.8	99.4	102.5	108.3	133.9
<i>Crops (excluding pastures)</i>	99.5	101.4	105.8	107.5	122.3
Livestock slaughterings—					
Cattle and calves ^(c)	82.2	104.0	102.7	102.8	119.1
Sheep and lambs	94.7	106.3	81.0	84.5	165.2
Pigs	110.1	103.0	107.9	106.8	97.8
Poultry	107.8	94.8	93.5	92.6	95.0
<i>Livestock slaughterings^(d)</i>	89.5	103.7	97.9	98.6	124.8
Livestock products—					
Wool	107.8	83.9	63.9	79.5	177.6
Milk	97.9	101.3	107.9	118.9	118.5
Eggs	102.8	97.6	85.6	87.6	95.1
<i>Livestock products^(e)</i>	104.5	90.2	78.7	91.8	153.4
Agricultural output^(f)	98.7	98.6	93.9	101.2	136.3

(a) Component unit gross values are weighted together using average quantities for the three years ended 1970-71. (b) Sugar cane cut for crushing and planting. (c) Includes dairy cattle slaughtered. (d) Component series based on value per unit of carcass weight. (e) Includes honey and bee-wax. (f) Excludes seed, feed and fodder consumed or retained on farms.

APPARENT CONSUMPTION OF FOODSTUFFS AND BEVERAGES**Apparent consumption**

The estimates of total consumption and consumption per head of population in Australia in the two tables which follow have been compiled by deducting net exports from the sum of production and imports and allowing for recorded movements in stocks of the respective commodities. The absence of particulars for stocks of certain commodities has resulted in some inaccuracies in the estimates of annual consumption. Consumption of foodstuffs is measured in general at 'producer' level. As a result, no allowance is made for wastage before the foodstuffs are consumed. In recent years wastage of foodstuffs has possibly been less than previously because of more efficient distribution and storage methods. Furthermore, it is likely that the quantities of foodstuffs shown in the following pages as available for consumption have been supplemented by production by householders for their own requirements. In most cases broad estimates of non-commercial (householders') production have been made. Except in few special cases, no adjustment has been made for changes in stocks held by wholesalers and retailers. Where no allowance is made it is considered unlikely that these stocks would make any appreciable difference to consumption estimates. It is felt that the foregoing deficiencies do not seriously impair the accuracy of the estimates compiled.

The estimates of consumption per head of population shown in the second of the following tables have been derived by dividing the total apparent consumption of each commodity or commodity group in a given year by the mean population of Australia in the same period.

More detailed information on the consumption of foodstuffs and beverages is contained in the statistical bulletin: *Apparent Consumption of Foodstuffs and Nutrients* (10.10), issued by this Bureau.

The following tables show the apparent average annual consumption during the three-year periods ended 1938-39, 1948-49 and 1958-59, together with the data for recent years.

APPARENT CONSUMPTION OF FOODSTUFFS AND BEVERAGES: AUSTRALIA

Commodity	Average three years ended—					
	1938-39	1948-49	1958-59	1970-71	1971-72	1972-73
Grain products—						
Flour (including wheatmeal for baking and sharps) '000 tonnes	583.2	700.8	801.7	1,007.2	998.0	980.2
Rice (milled) "	12.5	3.0	n.a.	33.1	33.6	41.6
Oatmeal and rolled oats "	15.6	13.8	13.5	1.7	5.7	9.4
Other breakfast foods from grain "	17.5	32.7	46.4	73.7	73.8	80.1
<i>Total grain products</i> "	<i>639.8</i>	<i>759.4</i>	<i>n.a.</i>	<i>1,115.8</i>	<i>1,113.3</i>	<i>1,113.6</i>
Sugar(a) "	331.8	415.4	492.9	636.3	645.6	664.4
Pulse and peanuts—						
Dried pulse "	4.6	7.5	11.3	n.a.	n.a.	n.a.
Peanuts (in shell) "	4.3	13.1	10.9	n.a.	n.a.	19.1
Vegetables(b)—						
Potatoes—						
White "	323.6	431.1	503.4	686.8	758.9	685.9
Sweet "	7.5	5.4	6.2	8.0	8.1	7.9
Other root and bulb vegetables "	n.a.	146.0	155.3	220.4	221.1	219.8
Tomatoes "	48.8	87.7	126.4	206.5	193.3	224.6
Leafy and green vegetables "	n.a.	156.5	174.9	260.2	280.1	265.6
Other vegetables "	n.a.	165.4	181.3	223.1	228.1	198.4
<i>Total vegetables</i> "	<i>n.a.</i>	<i>992.1</i>	<i>1,147.3</i>	<i>1,605.1</i>	<i>1,689.6</i>	<i>1,552.2</i>
Fruit—						
Citrus fruit "	99.4	129.2	156.2	384.4	356.8	399.7
Other fresh fruit "	292.8	302.3	346.9	577.6	551.6	486.0
Jams "	35.7	43.2	38.1	37.5	37.4	33.1
Dried fruit "	25.1	30.4	27.0	30.7	32.5	30.9
Canned fruit "	32.4	37.9	60.4	130.2	117.9	125.2
<i>Total fruit (fresh equivalent)</i> "	<i>540.8</i>	<i>617.7</i>	<i>702.5</i>	<i>1,279.3</i>	<i>1,221.4</i>	<i>1,260.3</i>
Meat (carcass weight)—						
Beef and veal "	437.2	378.7	547.0	502.4	508.1	513.5
Mutton "	187.1	156.5	225.2	249.6	262.6	193.1
Lamb "	46.7	87.5	129.7	301.8	314.7	244.2
Pigmeat "	26.6	24.7	44.3	87.6	88.8	103.2
<i>Total carcass weight</i> "	<i>697.6</i>	<i>647.3</i>	<i>946.2</i>	<i>1,141.4</i>	<i>1,174.2</i>	<i>1,054.1</i>
Canned meat (canned weight) "	6.6	9.1	18.2	32.5	33.1	32.5
Bacon and ham (cured carcass weight) "	32.0	40.5	31.0	58.7	63.9	71.6
<i>Total processed meat (carcass equivalent weight)</i> "	<i>58.5</i>	<i>70.6</i>	<i>74.3</i>	<i>121.8</i>	<i>127.3</i>	<i>140.4</i>
Poultry (dressed weight) "	n.a.	n.a.	n.a.	143.7	161.8	173.8
Eggs and egg products—						
Eggs in shell "	80.0	87.9	93.6	147.6	150.3	152.8
Egg pulp "	2.9	8.7	5.8	9.1	7.9	8.3
Egg powder . . . . . "	..	..	0.2	0.8	0.9	0.9
<i>Total eggs and egg products</i> } mil doz "	<i>82.9</i>	<i>96.6</i>	<i>99.6</i>	<i>158.5</i>	<i>159.0</i>	<i>162.1</i>
	<i>193.3</i>	<i>162.3</i>	<i>167.3</i>	<i>231.5</i>	<i>233.8</i>	<i>237.6</i>
Fish—						
Fresh and frozen (edible weight) "	18.4	17.9	23.2	47.7	41.4	41.5
Milk and milk products—						
Fluid whole milk mil litres	731.9	1,059.2	1,254.7	1,604.8	1,563.9	1,622.5
Condensed, concentrated and evaporated milk '000 tonnes	13.4	26.0	45.3	86.7	89.6	67.9
Powdered milk "	8.2	13.1	22.0	60.7	68.8	78.9
Infants and invalids foods "	3.0	4.4	9.6	11.9	18.4	11.4
Cheese "	13.6	19.1	25.4	51.7	53.8	60.6
Oils and fats—						
Butter "	103.0	36.1	120.3	117.0	112.0	109.0
Margarine—						
Table "	2.8	3.0	n.a.	16.1	17.5	21.6
Other "	12.4	19.0	21.5	48.1	52.0	53.4
Beverages—						
Tea "	21.4	22.5	26.5	27.6	27.3	27.0
Coffee(c) "	2.0	3.5	6.0	16.5	18.9	16.5
Beer mil litres	364.1	588.6	1,004.6	1,601.0	1,640.9	1,706.7
Wine "	19.3	44.7	50.6	110.5	115.6	130.0
Spirits litres alcohol	3.9	6.2	7.3	12.7	13.2	14.3

(a) In terms of refined includes sugar content of manufactured products concerned. (b) Includes fresh equivalent of manufactured products. (c) Coffee and coffee products in terms of processed whole or ground pure coffee.

**APPARENT CONSUMPTION OF FOODSTUFFS AND BEVERAGES PER HEAD OF POPULATION
AUSTRALIA, 1936-37 TO 1972-73**

Commodity	Average three years ended						
	1938-39	1948-49	1958-59	1970-71	1971-72	1972-73	
Grain products—							
Flour (including wheatmeal for baking and sharps)	kg	84.9	91.6	82.3	79.7	77.6	74.9
Rice (milled)	"	1.8	0.4	n.a.	2.6	2.6	3.2
Oatmeal and rolled oats	"	2.3	1.8	1.4	0.1	0.5	0.7
Other breakfast foods from grain	"	2.5	4.3	4.8	5.9	5.7	6.1
<i>Total grain products</i>	"	<i>93.1</i>	<i>99.2</i>	<i>n.a.</i>	<i>88.5</i>	<i>86.6</i>	<i>85.1</i>
Sugar(a)	"	48.3	54.3	50.6	50.3	50.2	50.8
Pulse and peanuts—							
Dried pulse	"	0.7	1.0	1.2	n.a.	n.a.	n.a.
Peanuts	"	0.6	1.7	1.1	n.a.	n.a.	1.5
Vegetables(b)—							
Potatoes—							
White	"	47.1	56.3	51.7	54.3	58.8	48.6
Sweet	"	1.1	0.7	0.6	0.6	0.6	0.6
Other root and bulb vegetables	"	n.a.	19.1	15.9	17.5	17.1	16.8
Tomatoes	"	7.1	11.5	13.0	16.3	15.0	17.2
Leafy and green vegetables	"	n.a.	20.5	17.9	20.6	21.7	20.3
Other vegetables	"	n.a.	21.6	18.6	17.6	17.7	15.1
<i>Total vegetables</i>	"	<i>n.a.</i>	<i>129.7</i>	<i>117.7</i>	<i>126.9</i>	<i>131.5</i>	<i>118.6</i>
Fruit—							
Citrus fruit	"	14.5	16.9	16.1	30.3	27.7	30.6
Other fresh fruit	"	42.6	39.5	35.6	45.7	42.8	37.2
Jams	"	5.2	5.6	3.9	2.9	2.9	2.5
Dried fruit	"	3.7	3.9	2.7	2.4	2.9	2.4
Canned fruit	"	4.7	5.0	6.2	10.3	8.5	9.7
<i>Total fruit (fresh fruit equivalent)</i>	"	<i>78.7</i>	<i>80.7</i>	<i>71.5</i>	<i>101.1</i>	<i>95.3</i>	<i>91.7</i>
Meat (carcass weight)—							
Beef and veal	"	63.6	49.5	56.2	39.7	39.5	39.3
Mutton	"	27.2	20.5	23.1	19.7	20.4	14.8
Lamb	"	6.8	11.4	13.3	23.8	24.4	18.7
Pigmeat	"	3.9	3.2	4.6	6.9	6.9	7.9
<i>Total carcass weight</i>	"	<i>101.5</i>	<i>84.6</i>	<i>97.2</i>	<i>90.2</i>	<i>91.1</i>	<i>80.6</i>
Canned meat (canned weight)	"	1.0	1.2	1.9	2.6	2.6	2.5
Bacon and ham (cured carcass weight)	"	4.6	5.3	3.2	4.6	5.0	5.5
<i>Total processed meat (carcass equivalent weight)</i>	"	<i>8.5</i>	<i>9.2</i>	<i>7.6</i>	<i>9.6</i>	<i>9.9</i>	<i>10.7</i>
Poultry (dressed weight)	"	n.a.	n.a.	n.a.	11.4	12.5	13.3
Eggs and egg products—							
Eggs in shell	"	11.7	11.5	9.6	11.7	11.7	11.7
Egg pulp	"	0.4	1.1	0.6	0.7	0.6	0.6
Egg powder	"	..	..	..	0.1	0.1	0.1
<i>Total eggs and egg products</i>	{	<i>12.1</i>	<i>12.7</i>	<i>10.2</i>	<i>12.5</i>	<i>12.3</i>	<i>12.4</i>
	No.	243	255	206	220	218	218
Fish—							
Fresh and frozen (edible weight)	kg	2.7	2.4	2.4	3.8	3.2	3.2
Milk and milk products—							
Fluid whole milk	litres	106.4	138.7	127.3	127.3	121.4	124.0
Condensed, concentrated and evaporated milk	kg	2.0	3.4	4.7	6.8	7.0	5.2
Powdered milk	"	1.2	1.7	2.3	4.8	5.3	6.0
Infants and invalids foods	"	0.5	0.6	1.0	1.0	1.4	0.9
Cheese	"	2.0	2.5	2.6	4.1	4.2	4.6
Oils and fats—							
Butter	"	14.9	11.2	12.3	9.3	8.7	8.3
Margarine—							
Table	"	0.4	0.4	n.a.	1.3	1.4	1.6
Other	"	1.8	2.4	2.2	3.8	4.0	4.1
Beverages—							
Tea	"	3.1	2.9	2.7	2.2	2.1	2.1
Coffee(c)	"	0.3	0.5	0.6	1.3	1.5	1.3
Beer	litres	53.2	76.8	103.2	126.7	127.5	130.5
Wine	"	2.7	5.9	5.0	8.7	9.0	9.9
Spirits	litres alcohol	0.5	0.8	0.8	1.0	1.1	1.3

(a) In terms of refined includes sugar content of manufactured products consumed. (b) Includes fresh equivalent of manufactured products. (c) Coffee and coffee products in terms of processed whole or ground pure coffee.

Level of nutrient intake

The next table shows details of the estimated supplies of nutrients available for consumption in Australia during recent years in comparison with the annual averages for the three-year periods ended 1938-39, 1948-49 and 1958-59. The table has been compiled by the Nutrition Section of the Australian Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population shown in the preceding table.

ESTIMATED SUPPLY OF NUTRIENTS AVAILABLE FOR CONSUMPTION, AUSTRALIA
(Per head per day)

Nutrient	Average three years ended—					
	1938-39	1948-49	1958-59	1970-71(a)	1971-72(a)	1972-73p
Protein—						
Animals g	58.7	57.4	59.6	64.7	68.3	65.3
Vegetable „	30.9	35.3	32.3	35.9	32.7	32.8
Total „	89.6	92.7	91.9	100.6	101.0	98.1
Fat „	133.5	121.7	131.7	121.9	121.6	115.1
Carbohydrate „	377.4	424.8	416.7	412.9	409.6	402.0
Calcium mg	642.0	785.0	817.0	986.0	1,008.0	1,003
Iron „	15.4	15.1	14.0	15.1	14.6	14.0
Vitamin A i.u.	4,905	4,630	4,568	(b)1,555	(b)1,644	(b)1,563
Ascorbic acid mg	86.0	96.0	89.0	102.0	98.0	97
Thiamin „	1.4	1.5	1.3	1.7	1.6	1.6
Riboflavin „	1.7	1.9	1.8	2.8	2.8	2.8
Niacin „	18.7	17.6	18.6	21.7	20.6	19.6
Energy value kilocalories	3,117	3,245	3,297	3,352	3,295	3,176

(a) Not comparable with previous years. Figures are based on conversion factors calculated from the revised and enlarged edition of 'Tables of Composition of Australian Foods'. (b) Micrograms.

NOTE. One international unit of vitamin A activity is equivalent to 0.3 micrograms of retinol.

INTERNAL TRADE

Extensive statistics of retail trade have been collected and published over many years. The first full census of wholesale trade, however, was conducted as part of the integrated economic censuses of 1968-69, outlined briefly below. For a detailed description of these censuses, reference should be made to Year Book No. 56, 1970, Chapter 31.

Economic Censuses, 1968-69

For the year ended 30 June 1969 the censuses of Wholesale Trade, and of Retail Trade and Selected Services, were conducted for the first time on an integrated basis with censuses of Mining, Manufacturing, and Electricity and Gas Production and Distribution. The integration of these economic censuses was designed to increase substantially the usefulness and comparability of the kinds of statistics already being collected and published by the Bureau and to form a basis for the sample surveys which supply current economic statistics from quarter to quarter, particularly those which provide data for the quarterly national income and expenditure estimates.

The integration of these economic censuses meant that for the first time they were being collected on the basis of a common framework of reporting units and data concepts and in accordance with a standard industrial classification. As a result, the statistics for the industries covered by the censuses are now provided with no overlapping or gaps in scope, and in such a way that aggregates for certain important economic data such as value added, employment, salaries and wages, fixed capital expenditure and stocks can be obtained on a consistent basis for all sectors of the economy covered by the censuses.

The standardisation of census units in the integration of economic censuses means that the basic census unit (the establishment) in general now covers all the operations carried on under the one ownership at a single physical location. The retail establishment is thus one predominantly engaged in retailing, and the wholesale establishment one predominantly engaged in wholesaling, but the data supplied for them now cover, with a few exceptions, all activities at the location.

Establishment statistics, other than the number of establishments, also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the business (enterprise) which owns and operates the establishment. These units, such as head offices, storage premises, transport depots and motor vehicle repair and maintenance workshops, were formerly excluded from censuses.

The summary tables shown in this section include final figures from the 1968-69 censuses of wholesale and retail trade. Further and more detailed statistics are included in separate bulletins published by the Central and State offices of this Bureau.

Wholesale Trade

The term wholesale trade is used in the wholesale census in the broad sense to include the resale (by agents or principals) of new or used goods to retailers or other wholesalers or to institutional (including government), professional or other business users (including farmers and builders). The more important types of business engaged in wholesale trade are wholesale merchants, who take title to the goods they sell; manufacturers' sales branches; commission agents, including import and export agents and purchasing agents; petroleum products distributors; and co-operative and marketing boards engaged in marketing farm products.

Each establishment in the integrated censuses is identified in terms of a particular location and all sales, employment, etc., are recorded for that location, regardless of the size of the sales territory covered, i.e. the location of customers. For this reason, all of the sales, etc., of the wholesale establishments located in the State of Victoria, for example, are credited to Victoria even though the sales territories may extend over several States.

In the tables which follow, wholesale establishments have been classified by type of operation according to the nature of the functions performed and by industry according to the Australian Standard Industrial Classification. The basis of the broad type of operation classification is the description of 'type of operation' reported by businesses for each individual wholesale establishment.

WHOLESALE ESTABLISHMENTS: SUMMARY OF OPERATIONS BY BROAD TYPE OF OPERATION: AUSTRALIA, 1968-69

Broad type of operation	Number of establishments at 30 June 1969	Persons employed (a)	Wages and salaries	Turn-over	Stocks at 30 June		Purchases, transfers in and selected expenses	Value added (b)	Total wholesale sales
					1968	1969			
Primary produce dealers or agents	No. 3,468	No. 37,603	\$m 102.5	\$m 1,846.0	\$m 304.0	\$m 523.5	\$m 1,827.5	\$m 238.0	\$m 4,025.4
Wholesale merchants—									
Import and/or export merchants	3,171	35,515	111.5	2,197.1	300.2	346.0	1,926.9	316.0	2,411.5
Other wholesale merchants	18,489	210,300	590.8	8,198.0	1,015.6	1,103.0	6,880.7	1,404.8	8,263.2
Manufacturers sales branches holding stocks	1,751	31,464	101.4	1,550.1	163.8	187.2	1,273.4	300.1	1,947.6
Commission agents or brokers	3,426	16,847	47.0	361.9	33.3	36.5	248.2	116.8	2,514.6
Petroleum distributors	2,387	22,186	77.4	1,660.8	124.6	141.9	1,339.1	339.0	2,811.3
Repairers and lessors of machinery and equipment	664	4,896	14.7	85.3	4.1	5.3	28.1	58.4	27.5
Total wholesale trade	33,356	358,811	1,045.3	15,899.1	1,945.5	2,343.4	13,524.0	2,773.0	22,001.1

For footnotes see next page

WHOLESALE ESTABLISHMENTS: 1968-69

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Establishments at 30 June	11,882	9,189	4,912	3,159	2,950	920	113	231	33,356
Persons employed(a)	130,387	102,021	50,521	32,462	32,192	8,775	879	1,574	358,811
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Wages and salaries	399.5	307.1	135.0	87.0	85.6	23.6	2.8	4.8	1,045.3
Turnover	5,749.8	5,120.7	2,130.3	1,226.9	1,271.8	308.6	35.7	55.4	15,899.1
Stocks at 30 June—									
1968	644.8	759.1	214.4	135.8	143.1	39.1	4.3	4.9	1,945.5
1969	718.2	1,035.1	230.0	144.9	162.4	42.4	4.9	5.6	2,343.4
Purchases, transfers in and selected expenses	4,769.4	4,571.3	1,795.5	1,006.7	1,057.7	250.7	28.5	43.9	13,524.0
Value added(b)	1,053.7	825.4	350.4	229.3	233.3	61.2	7.8	12.2	2,773.0
Total wholesale sales	8,054.8	6,910.6	2,910.4	1,699.5	1,866.6	435.8	58.1	65.2	22,001.1

(a) At end of June 1969, includes working proprietors. (b) Sales on own account, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

WHOLESALE ESTABLISHMENTS: SUMMARY OF OPERATIONS, BY INDUSTRY CLASS
AUSTRALIA, 1968-69

Industry class	Number of establishments at 30 June 1969		Wages and salaries	Turnover	Stocks at 30 June		Purchases, transfers in and selected expenses	Value added (b)	Total wholesale sales
	No.	Persons employed (a)			1968	1969			
	No.	No.	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
General wholesalers	428	9,318	26,451	346,692	43,949	46,303	297,513	51,533	593,244
Wool selling brokers, stock and station agents and farm suppliers	2,978	29,277	82,486	659,482	58,068	61,256	482,715	179,955	2,680,860
Wool buyers and farm products wholesalers, n.e.c.	993	8,401	25,974	1,437,107	258,629	495,660	1,602,808	71,329	2,039,371
Petroleum and petroleum products wholesalers	2,456	22,558	75,205	1,669,760	124,984	142,328	1,345,204	341,900	2,821,141
Iron and steel wholesalers	336	5,610	19,222	379,367	60,472	72,483	337,384	53,995	485,963
Metal scrap wholesalers	325	2,261	5,664	89,073	4,856	5,109	73,966	15,360	89,918
Metals and minerals wholesalers n.e.c.	197	2,332	8,252	350,772	19,939	24,150	326,768	28,215	453,879
Chemical and allied products wholesalers n.e.c.	497	5,814	21,218	381,488	60,942	70,159	318,610	72,095	433,101
<i>Total, Other minerals metals and chemical wholesalers</i>	<i>1,355</i>	<i>16,017</i>	<i>54,358</i>	<i>1,200,701</i>	<i>146,209</i>	<i>171,899</i>	<i>1,056,727</i>	<i>169,664</i>	<i>1,462,864</i>
Agricultural and construction machinery dealers	2,282	22,048	61,758	807,384	176,304	193,634	656,921	167,792	777,033
Tyres and motor vehicle parts wholesalers	1,050	19,235	54,158	598,989	111,524	123,892	467,330	144,029	620,933
Professional and scientific equipment wholesalers	311	3,524	10,753	85,764	19,367	21,849	64,473	23,773	89,914
Dealers in business machines, including computers	584	12,025	41,965	191,498	40,395	39,408	87,479	103,033	134,311
Electrical and electronic equipment wholesalers n.e.c.	1,061	13,049	40,536	484,688	71,366	82,332	397,121	8,533	571,529
Industrial machinery and equipment wholesalers n.e.c.	1,769	20,980	69,949	723,453	142,572	156,608	578,722	158,767	808,276
<i>Total, Machinery and equipment wholesalers</i>	<i>7,057</i>	<i>90,861</i>	<i>279,124</i>	<i>2,891,775</i>	<i>561,525</i>	<i>617,722</i>	<i>2,252,045</i>	<i>695,927</i>	<i>3,001,995</i>
Timber wholesalers	862	9,185	26,523	370,618	41,391	44,979	315,674	58,527	399,573
Dealers in builders' hardware and materials n.e.c.	4,057	40,844	110,182	1,073,353	136,649	146,296	855,299	227,703	1,226,008
<i>Total, Building materials and suppliers wholesalers</i>	<i>4,919</i>	<i>50,029</i>	<i>136,707</i>	<i>1,443,969</i>	<i>178,040</i>	<i>191,275</i>	<i>1,170,972</i>	<i>286,233</i>	<i>1,625,581</i>
Household appliances, radio and TV wholesalers	549	9,052	26,919	400,153	40,910	49,033	331,587	76,688	465,411
China, glassware and domestic hardware wholesalers	529	3,527	9,121	98,269	15,665	16,592	75,643	23,553	140,480
Furniture and floor coverings wholesalers	530	3,064	8,176	121,903	16,232	18,172	100,891	22,951	214,054
<i>Total, Wholesalers of household appliances and hardware, furniture</i>	<i>1,608</i>	<i>15,643</i>	<i>44,216</i>	<i>620,325</i>	<i>72,807</i>	<i>83,797</i>	<i>508,122</i>	<i>123,192</i>	<i>819,946</i>

For footnotes see next page.

WHOLESALE ESTABLISHMENTS: SUMMARY OF OPERATIONS, BY INDUSTRY CLASS
AUSTRALIA, 1968-69—continued

Industry class	Number of establishments at 30 June 1969	Persons employed (a)	Wages and salaries	Turnover	Stocks at 30 June		Purchases, transfers in and selected expenses	Value added (b)	Total wholesale sales
					1968	1969			
	No.	No.	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Men's and boys' clothing wholesalers	502	3,789	10,003	177,910	23,810	24,488	150,198	28,390	261,030
Women's, girls' and infants' clothing wholesalers	913	5,910	14,982	220,541	23,550	23,668	181,235	39,423	361,626
Footwear wholesalers	234	1,512	4,260	73,665	3,880	4,142	60,412	13,515	139,475
Textile and textile products wholesalers n.e.c.	1,252	9,562	27,147	428,166	61,938	66,596	363,807	69,017	712,751
<i>Total, Clothing, footwear and textile wholesalers n.e.c.</i>	<i>2,901</i>	<i>20,773</i>	<i>56,393</i>	<i>900,282</i>	<i>113,178</i>	<i>118,894</i>	<i>755,652</i>	<i>150,345</i>	<i>1,474,881</i>
Meat wholesalers	451	4,950	15,330	494,779	12,032	16,105	451,318	47,535	545,623
Poultry, smallgoods and dairy products wholesalers	652	6,786	20,083	525,086	47,398	37,406	456,858	58,236	648,882
Fruit and vegetables wholesalers	1,050	9,148	21,831	273,669	6,715	6,026	226,529	46,450	373,504
Fish wholesalers	274	3,326	7,580	140,803	9,238	11,581	121,812	21,333	156,832
Eggs wholesalers	92	2,270	5,553	111,079	4,026	3,709	100,300	10,462	102,905
Confectionery and soft drinks wholesalers	477	3,539	8,807	145,424	8,034	9,740	125,934	21,195	169,541
Beer, wine and spirits wholesalers	289	4,863	14,451	265,940	26,357	29,893	219,664	49,813	271,221
Cigarettes, cigars and tobacco wholesalers	195	3,633	11,607	435,770	19,713	20,865	405,044	31,877	513,443
Groceries and food wholesalers n.e.c.	1,199	18,011	49,167	1,088,429	88,969	90,963	962,388	128,038	1,212,356
<i>Total, Food, beverages and tobacco products wholesalers</i>	<i>4,679</i>	<i>56,526</i>	<i>154,411</i>	<i>3,480,978</i>	<i>222,481</i>	<i>226,289</i>	<i>3,069,847</i>	<i>414,940</i>	<i>3,994,318</i>
Photographic equipment and supplies wholesalers	149	2,435	7,156	81,004	9,992	12,760	58,592	25,179	83,659
Watches, clocks and jewellery wholesalers	419	2,160	5,090	61,399	15,479	16,742	47,657	15,006	69,963
Toys and sporting goods wholesalers	417	2,939	7,401	88,257	16,585	18,148	70,177	19,643	98,699
Books, periodicals, paper and paper products wholesalers	1,021	12,132	34,296	410,459	55,342	67,095	334,286	87,926	500,494
Pharmaceutical and toilet preparations wholesalers	854	12,661	35,393	426,484	49,091	51,464	332,047	96,809	526,371
Wholesalers n.e.c.	1,122	7,081	17,651	180,459	19,173	21,803	139,663	43,425	207,677
<i>Total, Other wholesalers</i>	<i>3,982</i>	<i>39,408</i>	<i>106,988</i>	<i>1,248,063</i>	<i>165,662</i>	<i>188,011</i>	<i>982,424</i>	<i>287,987</i>	<i>1,486,859</i>
Total, Australia	33,356	358,811	1,045,311	15,899,132	1,945,537	2,343,435	13,524,025	2,773,008	22,001,060

(a) At end of June 1969; includes working proprietors. (b) Sales on own account, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Retail Trade

The definition of 'retail trade' adopted in the 1968-69 Retail Census is the same as the definition used in previous retail censuses, i.e. the resale of new and used goods to final consumers for personal and household consumption. The basis on which previous censuses of retail establishments were conducted was described in detail in Year Book No. 56, 1970 (page 1022).

Previous censuses of retail establishments included a number of activities that were also covered by the annual manufacturing census: principally motor vehicle repairs, dry cleaning, shoe repairs and tyre retreading. Takings from these activities were reported in the retail trade census but not included in 'retail sales'. The following activities were also included in previous retail censuses if they were carried on in establishments which had retail sales of more than \$1,000: custom dress-making and custom tailoring, clothing repair and alterations, making up and repair of blinds, awnings and curtains, repairs of domestic appliances, panel beating and smash repairs, watch and clock repairs, jewellery repairs, and baking of cakes in cake shops. These activities were also covered by the annual manufacturing census. With the adoption of the new establishment concept in the 1968-69 economic censuses, no establishment was required to supply returns in more than one census and all establishments mainly engaged in the above activities are now included in the retail trade census only.

Censuses of retail trade in Australia have traditionally included certain types of service establishments in their scope, in addition to retail establishments more narrowly defined. Some of the service establishments so included make retail sales in appreciable volume as well as providing important services for which the statistics can be conveniently collected in the framework of the retail census.

The census of retail trade for 1968-69 included the following types of service establishments in its scope in addition to establishments classified to Retail Trade: motion picture theatres; cafes and restaurants; licensed hotels, motels and wine saloons; licensed clubs; laundry and dry cleaning services; and hairdressing and beauty salons. Of these service industries, cafes and restaurants, licensed hotels, motels and wine saloons and hairdressing and beauty salons had been included in previous censuses as retail establishments, while the remainder were included in the supplementary collections made from establishments not described as retail establishments.

Some changes in the scope of the retail census have been made for reasons not connected with the introduction of a standard industrial classification; for example bread vending and milk vending by independent vendors mainly engaged in retailing bread or milk by home delivery service are included for the first time.

Because of the changes which have occurred in the definition of census units, the scope of the census and the items of data collected, it is not possible to make direct comparisons between the figures obtained from the 1968-69 Retail Census and those obtained from previous retail censuses or from the monthly and quarterly retail surveys based on previous retail censuses. For further information concerning such changes and their effects on comparisons with other statistics of retail trade, reference should be made to Year Book No. 56, 1970, Chapter 31, and to *Economic Censuses, 1968-69: Retail Establishments and Selected Service Establishments—Final Bulletins*.

RETAIL ESTABLISHMENTS AND SELECTED SERVICE ESTABLISHMENTS: SUMMARY OF OPERATIONS, BY INDUSTRY CLASS, AUSTRALIA, 1968-69

Industry class	Number of establishments at 30 June 1969	Persons employed (a)	Wages and salaries (b)	Turnover (b)	Stocks at 30 June		Purchases, transfers in and selected expenses (b)	Value added (b)(c)	Retail sales (b)
					1968	1969			
RETAIL ESTABLISHMENTS									
Department stores	No. 249	No. 73,106	\$m 162.1	\$m 1,082.3	\$m 152.4	\$m 161.3	\$m 795.9	\$m 295.4	\$m 1,016.8
Variety and general stores	2,466	38,642	65.1	542.8	80.5	88.3	416.1	134.6	498.1
<i>Total, Department, variety and general stores</i>	<i>2,715</i>	<i>111,748</i>	<i>227.2</i>	<i>1,625.2</i>	<i>232.9</i>	<i>249.6</i>	<i>1,212.0</i>	<i>429.9</i>	<i>1,514.9</i>
Supermarkets	657	28,296	57.5	641.0	37.7	42.7	543.3	102.7	634.1
Grocers and tobacconists	22,947	76,844	65.5	1,351.3	95.1	103.7	1,142.6	217.3	1,327.7
Butchers	9,447	34,434	63.7	598.8	5.8	6.2	453.8	145.4	594.4
Fruit and vegetable stores	4,967	18,246	13.3	198.9	3.2	3.4	153.3	45.7	196.5
Liquor stores	553	2,563	3.7	64.3	4.8	5.5	52.1	12.9	62.8
Confectionery and soft drink stores	7,190	25,874	16.9	239.4	9.1	10.2	181.8	58.7	227.1
Fish, chip and hamburger shops	3,468	12,299	7.9	94.1	1.6	1.9	64.7	29.7	89.4
Bread and cake shops	2,709	13,345	16.5	87.0	1.6	1.9	50.9	36.3	84.7
<i>Total, Food stores</i>	<i>51,938</i>	<i>211,901</i>	<i>245.1</i>	<i>3,274.8</i>	<i>159.0</i>	<i>175.4</i>	<i>2,642.5</i>	<i>648.7</i>	<i>3,216.5</i>
Bread vendors	1,098	2,084	1.4	27.7	..	..	21.3	6.4	26.4
Milk vendors	4,361	12,804	10.1	180.7	0.3	0.3	143.3	37.4	173.6
<i>Total, Bread and milk vendors</i>	<i>5,459</i>	<i>14,888</i>	<i>11.5</i>	<i>208.4</i>	<i>0.3</i>	<i>0.3</i>	<i>164.6</i>	<i>43.8</i>	<i>199.9</i>
Furniture and floor covering stores	2,216	13,400	30.4	279.8	38.9	43.4	209.4	75.0	271.3
Fabrics and household textile stores	2,322	8,879	12.5	108.3	24.8	26.3	77.6	32.3	106.9
Men's and boy's wear stores	3,155	14,440	24.5	223.6	51.4	54.9	159.0	68.1	219.4
Women's, girls' and infants' wear stores	7,293	28,806	40.2	361.4	72.6	77.8	262.2	104.4	359.6
Footwear stores	2,200	10,462	16.1	141.9	36.9	38.1	102.6	40.5	139.2
Shoe repairers	1,565	2,719	2.1	11.8	0.8	0.8	4.1	7.7	1.3
<i>Total, Clothing, fabrics and furniture stores</i>	<i>18,751</i>	<i>78,706</i>	<i>125.7</i>	<i>1,126.8</i>	<i>225.4</i>	<i>241.4</i>	<i>814.8</i>	<i>328.0</i>	<i>1,097.7</i>
Household appliance stores	2,995	17,694	43.5	388.3	53.1	54.3	287.3	102.3	337.3
Household electric appliance repairers	1,117	6,543	15.9	47.1	4.5	4.9	19.3	28.2	4.8
China, glassware and domestic hardware stores	1,812	7,594	11.4	102.4	19.7	21.3	74.0	30.1	82.4
Watchmakers and jewellers	2,149	7,902	12.1	91.2	28.4	30.7	58.5	35.0	80.1
Musical instrument and record stores	451	2,384	4.3	35.9	6.8	7.9	24.2	12.9	33.8
<i>Total, Household appliance and hardware stores</i>	<i>8,524</i>	<i>42,117</i>	<i>87.2</i>	<i>664.9</i>	<i>112.5</i>	<i>119.2</i>	<i>463.1</i>	<i>208.5</i>	<i>538.4</i>

For footnotes see following table.

RETAIL ESTABLISHMENTS AND SELECTED SERVICE ESTABLISHMENTS: SUMMARY OF OPERATIONS, BY INDUSTRY CLASS, AUSTRALIA, 1968-69—continued

Industry class	Number of establishments at 30 June 1969	Persons employed (a)	Wages and salaries (b)	Turnover (b)	Stocks at 30 June		Purchases, transfers in and selected expenses (b)	Value added (b)(c)	Retail sales (b)
					1968	1969			
RETAIL ESTABLISHMENTS—continued									
	No.	No.	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Motor vehicle dealers and motor vehicle repairers n.e.c.	7,428	75,123	183.4	2,463.6	205.0	230.1	2,011.0	477.8	1,711.1
Used motor vehicle and parts dealers	2,158	11,733	31.5	552.4	49.2	53.0	465.4	90.9	506.9
Tyre and battery retailers and tyre retreaders	1,390	11,050	30.2	224.2	22.6	24.3	164.5	61.5	179.9
Service stations	10,340	47,057	62.0	749.9	27.1	30.2	585.4	167.5	648.6
Smash repair workshops	3,382	19,812	40.9	142.7	5.1	5.4	67.1	75.9	6.7
Motor cycle dealers	301	1,571	3.1	28.9	4.6	5.1	21.6	7.9	20.2
Boat and caravan dealers	541	2,488	5.6	95.0	11.9	13.8	80.2	16.6	75.5
<i>Total, Motor vehicle dealers, petrol and tyre retailers</i>	<i>25,540</i>	<i>168,834</i>	<i>356.5</i>	<i>4,256.6</i>	<i>325.4</i>	<i>362.0</i>	<i>3,395.2</i>	<i>898.0</i>	<i>3,148.9</i>
Pharmacies	5,786	28,519	46.3	381.5	59.0	64.6	255.0	132.1	376.0
Photographic equipment stores	351	1,474	2.8	23.5	3.6	4.0	16.1	7.7	22.1
Sporting goods, bicycle and toy shops	2,020	6,206	7.0	74.5	14.8	16.4	53.8	22.3	69.3
Newsagents, stationers and booksellers	3,892	20,729	25.5	272.2	34.0	36.6	204.4	70.3	266.3
Antique and second hand goods dealers	1,470	3,665	3.0	29.7	5.4	6.1	18.8	11.6	28.8
Nurserymen and florists	1,453	4,779	4.5	30.8	2.5	2.7	18.2	12.8	30.0
Retailers n.e.c.	2,031	7,866	10.5	66.2	8.4	9.4	36.4	30.7	46.3
<i>Total, Other retailers</i>	<i>17,003</i>	<i>73,238</i>	<i>99.7</i>	<i>878.4</i>	<i>127.7</i>	<i>139.7</i>	<i>602.7</i>	<i>287.6</i>	<i>838.6</i>
Total retail establishments	129,930	701,432	1,152.9	12,035.1	1,183.3	1,287.7	9,295.0	2,844.5	10,555.0
SELECTED SERVICE ESTABLISHMENTS									
	No.	No.	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Motion picture theatres	957	9,048	13.3	54.4	0.3	0.3	21.2	33.2	5.2
Cafes and restaurants	4,332	36,876	48.2	209.7	4.0	5.0	109.3	101.3	45.3
Licensed hotels, motels and wine saloons	6,289	87,852	155.5	1,003.3	28.3	31.5	623.3	383.3	839.1
<i>Total, Restaurants and licensed hotels</i>	<i>10,621</i>	<i>124,728</i>	<i>203.7</i>	<i>1,213.0</i>	<i>32.3</i>	<i>36.5</i>	<i>732.6</i>	<i>484.6</i>	<i>884.4</i>
Licensed bowling clubs	1,003	6,008	12.6	58.0	1.5	1.5	26.2	31.9	33.8
Licensed golf clubs	541	4,903	10.8	37.0	0.9	1.0	14.3	22.8	16.4
Licensed clubs n.e.c.	1,217	26,958	58.1	253.8	5.3	5.9	101.3	153.0	118.3
<i>Total, licensed clubs</i>	<i>2,761</i>	<i>37,869</i>	<i>81.6</i>	<i>348.7</i>	<i>7.7</i>	<i>8.5</i>	<i>141.8</i>	<i>207.7</i>	<i>168.5</i>
Laundries and dry cleaners	2,160	20,105	35.3	89.7	1.2	1.3	22.7	67.1	0.6
Men's hairdressing	3,243	5,448	3.3	20.2	0.7	0.8	5.2	15.0	4.6
Women's hairdressing and beauty salons	6,599	23,427	25.0	66.4	1.7	2.0	12.7	54.0	2.5
<i>Total, Hairdressing and beauty salons</i>	<i>9,842</i>	<i>28,875</i>	<i>28.3</i>	<i>86.6</i>	<i>2.4</i>	<i>2.8</i>	<i>17.9</i>	<i>69.0</i>	<i>7.0</i>
Total, Selected service establishments	26,341	220,625	362.2	1,792.5	43.8	49.3	936.2	861.7	1,065.8
Total, Retail and selected service establishments	156,271	922,057	1,515.1	13,827.6	1,227.1	1,337.0	10,231.2	3,706.2	11,620.8

For footnotes see following table.

**RETAIL ESTABLISHMENTS AND SELECTED SERVICE ESTABLISHMENTS
STATES AND TERRITORIES, 1968-69**

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.(d)</i>	<i>A.C.T.(d)</i>	<i>Aust.(e)</i>
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Number of establishments at 30 June 1969	57,770	43,950	22,687	14,247	11,177	4,857	554	1,025	156,271
Persons employed(a)	352,907	255,237	120,469	85,291	68,949	26,930	3,493	8,588	922,057
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Wages and salaries(b)	616.7	412.7	184.0	128.3	107.3	40.7	7.4	17.7	1,515.1
Turnover(b)	5,258.3	3,837.4	1,834.9	1,161.0	1,124.7	359.1	69.0	151.5	13,827.6
Stocks at 30 June—									
1968	453.7	333.5	174.9	110.5	54.6	40.1	6.2	13.6	1,227.1
1969	489.9	369.1	188.3	120.4	103.2	43.7	7.8	14.5	1,337.0
Purchases, transfers in and selected expenses(b)	3,807.8	2,862.9	1,382.0	867.3	855.3	291.6	51.7	112.0	10,231.2
Value added(b)(c)	1,486.7	1,010.0	466.3	303.7	278.0	101.1	18.9	40.5	3,706.2
Retail sales(b)	4,396.9	3,232.6	1,540.8	988.5	939.4	339.5	58.1	124.9	11,620.8

(a) At end of June; including working proprietors and unpaid helpers working at least 15 hours during the week. (b) Figures relate to all establishments which operated during the year. (c) Turnover plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses. (d) Excludes motion picture theatres. (e) Includes Northern Territory and Australian Capital Territory motion picture theatres.

Value of retail sales in each commodity group, Australia, based on 1968-69 Census of Retail Establishments

The following table shows the value of retail sales of goods in each of the commodity groups specified for 1968-69 and recent years, on a comparable basis throughout. The figures for the year 1968-69 were obtained from the 1968-69 census and figures for the other years shown are estimates based on sample surveys, on a basis comparable with the 1968-69 census.

VALUE OF RETAIL SALES: COMMODITY GROUPS, AUSTRALIA(a)
(\$ million)

<i>Commodity group</i>	<i>1968-69(b)</i>	<i>1971-72</i>	<i>1972-73</i>	<i>1973-74</i>
Groceries	1,449.0	1,758.9	1,944.3	2,229.7
Butchers' meat	648.2	766.8	851.4	1,038.4
Other food(c)	927.9	1,169.9	1,259.2	1,469.1
<i>Total, food and groceries</i>	<i>3,025.1</i>	<i>3,695.6</i>	<i>4,054.9</i>	<i>4,737.2</i>
Beer, wine and spirits	1,045.5	1,427.3	1,575.2	1,797.4
Clothing and drapery	1,334.9	1,720.9	1,925.1	2,306.4
Footwear	221.8	285.7	304.5	352.5
Hardware, china and glassware(d)	316.7	413.3	451.0	565.2
Electrical goods(e)	515.0	736.7	833.9	1,034.6
Furniture and floor coverings	407.5	557.0	633.3	795.2
Chemists' goods	433.4	636.5	689.3	772.1
Newspapers, books and stationery	314.5	379.2	418.7	492.3
Other goods(f)	711.3	920.2	1,018.9	1,228.1
<i>Total (excluding motor vehicles, etc.)</i>	<i>8,325.7</i>	<i>10,772.4</i>	<i>11,904.8</i>	<i>14,081.0</i>

(a) Excludes Northern Territory and Australian Capital Territory. (b) 1968-69 census results. (c) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, and wrapped lunches. (d) Excludes basic building materials, builders' hardware and supplies such as tools of trade, paint, etc. (e) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (f) Includes tobacco, cigarettes, etc., sporting goods, etc., but excludes grain and produce and business machines.

Total value of retail sales

TOTAL VALUE OF RETAIL SALES (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.)
(\$ million)

<i>Year</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>Aust.(a)</i>
1968-69(b)	3,196.1	2,409.7	1,098.5	721.0	650.1	250.3	8,325.7
1971-72	4,129.7	3,009.1	1,492.1	956.9	878.7	305.9	10,772.4
1972-73	4,546.2	3,351.9	1,654.1	1,047.4	965.8	339.4	11,904.8
1973-74	5,283.4	4,020.0	2,015.8	1,226.6	1,137.1	398.1	14,081.0

(a) Excludes Northern Territory and Australian Capital Territory. (b) 1968-69 census results.

Retail sales of goods at constant prices

The following table shows series of the value of retail sales of goods at constant (average 1968-69) prices. The scope of the series at constant prices is identical to that of the series at current prices. Further information concerning the sources and methods used in compiling the series is contained in the publication *Retail Sales of Goods—March quarter 1974* (Reference No. 11.4). Quarterly figures in original and seasonally adjusted terms are shown in this and subsequent issues.

Nature of the estimates at constant prices. Although money value is the only practicable measure by which the great variety of goods and services produced and exchanged can be reduced to a common unit and aggregated, it is a measure which itself is subject to change as prices change. It is therefore useful, for certain types of economic analysis, to examine estimates of the principal flows of goods and services in the economy revalued in such a way as to remove the direct effects of changes in their prices which have occurred between the periods under review. Such estimates, conventionally described as *at constant prices*, are presented in this publication for retail sales of goods. Whilst these estimates vary with changes in the quantities of the component goods, they remain measures in money terms, *expressed in prices of a base year*, and are not measures of physical volume. It is not possible either by estimates of this kind, or by any other means, to aggregate different goods in any physical sense.

In concept, the constant price estimates may be thought of as being derived by expressing the value of each retail commodity as the *product of a price and a quantity*, and by then substituting for each actual current price the corresponding price in the chosen base year. Aggregates at constant prices for each period are then obtained by summation. It is not possible in practice to use this method of revaluation because data on the quantities of retail commodities sold are not obtained in the Quarterly Survey of Retail Establishments. The method adopted is to use *independently constructed composite price indexes* to effect the revaluation.

In building up values at constant prices, quantities of individual commodities are, in effect, weighted by their prices in the base year. As prices do not all move in the same proportions, or even in the same direction, the choice of a particular base year may affect the trend of the constant price series. Furthermore the significance of price weights becomes more uncertain as the interval increases between any period and the base year of the series.

Estimates at constant prices are, of necessity, subject to approximations and assumptions, and they should not be interpreted in any precise quantitative sense.

Methods. For each of the commodity groups for which there are estimates of the value of retail sales at current prices, values at constant prices are derived by dividing the current price value by a *composite price index* which is specially constructed for this purpose. It should be noted that for consistency with the direct revaluation of quantities at base year prices, the price indexes used should have weights relating to the current period rather than fixed weights. However, in the main, the indexes used are of necessity *fixed weights indexes* and so the results of the revaluation at the commodity group level are only approximations to the desired results. The constant price estimates derived for each commodity group are combined to obtain four broad commodity groups for publication.

The *price indexes* used to effect the revaluation are mainly relevant components of the Consumer Price Index. Additional price information is utilised where appropriate Consumer Price Index components are not available. These price indexes are weighted together to form composite price indexes for commodity groups. In general, the *weights* used are derived from information collected in the Retail Censuses. 1961-62 Census data are used in the weighting of price indexes for the revaluation of the value of retail sales obtained from the quarterly surveys based on the 1961-62 Census and 1968-69 Census data are used in the weighting of price indexes for the revaluation of the value of retail sales obtained from the quarterly surveys based on the 1968-69 Census. In many cases where Retail Census data are insufficiently detailed for weighting purposes weighting information is obtained from other data sources.

**VALUE OF RETAIL SALES OF GOODS AT CONSTANT (AVERAGE 1968-69) PRICES
BY BROAD COMMODITY GROUPS: AUSTRALIA(a)**

(\$ million)

Broad commodity group	1961-62 Census Base			1968-69 Census Base			
	1969-70	1970-71	1971-72	1968-69 (b)	1971-72	1972-73	1973-74
Food and drink	4,039.9	4,166.2	4,317.4	4,074.8	4,572.7	4,751.9	4,798.4
Clothing, hardware, electrical and furniture	2,729.1	2,856.7	2,941.4	2,791.2	3,330.3	3,551.2	3,930.1
Other	1,632.5	1,635.2	1,630.7	1,456.2	1,609.3	1,664.2	1,780.2
Total (excluding motor vehicles, parts, petrol, etc.)	8,401.5	8,658.1	8,889.5	8,322.3	9,512.3	9,967.3	10,508.7

(a) Excludes Northern Territory and Australian Capital Territory.

(b) 1968-69 Census results.

ENTERPRISE STATISTICS—INTEGRATED ECONOMIC CENSUSES 1968–69

The first integrated economic censuses conducted by the Bureau of Statistics were in respect of the year 1968–69, and included censuses of mining, manufacturing, electricity and gas production and distribution, wholesale trade, retail trade and selected service industries. A large body of establishment and commodity statistics, as well as industry concentration statistics (see page 1111) was published in respect of these censuses. In addition, detailed statistics were published in respect of *enterprises** and these are summarised below.

The business units, as standardised for purposes of the integrated economic censuses, are at three levels: the establishment (and associated administrative offices and ancillary units); the enterprise; and the enterprise group.

The central unit from which statistical information was collected is the *enterprise*, defined broadly as the unit comprising all operations in Australia of a single operating legal entity. The term *legal entity* is used to cover a sole proprietor, or partnership, or company, but also includes co-operative societies and some government authorities mainly engaged in the industries included in the censuses.

The group of legal entities owned or controlled by a single company is recognised as a separate type of unit—the *enterprise group*. The basic unit for which most data were collected and tabulated is the *establishment*, defined in general as a unit comprising all the operations carried on by the one enterprise at a single physical location—such as an individual factory, shop or mine.

Each of the different levels of business unit defined above tends to be appropriate for the collection and dissemination of statistics relating to a particular aspect of economic activity. Statistics relating to aspects of economic operations are most appropriately collected and tabulated at the establishment level. With the development of more complex diverse business undertakings, especially those cutting across industrial, geographic and national boundaries, there has been an increasing interest in statistics relating to management and ownership. Such statistics are often more appropriately collected and tabulated in respect of enterprises. Statistics can also be collected and tabulated for the highest level of business unit, the enterprise group. Information about sources and uses of funds, overseas investment and the degree of concentration of ownership or control over the output of industries usually takes account of the characteristics of the enterprise group, although the information tabulated may relate to lower level units.

In the Integrated Economic Censuses, information was collected using a common framework of reporting units (enterprises and establishments as defined above) and data concepts and in accordance with a standard industrial classification (the *Australian Standard Industrial Classification*). As a result the statistics for the industries covered by the censuses are provided with no overlapping or gaps in scope, so that aggregates for economic data such as value added, employment, wages and salaries, fixed capital expenditure and stocks are obtained on a consistent basis for all industries and business units covered by the censuses. A detailed description of the integration of economic censuses is contained in Chapter 31, Year Book No. 56, 1970.

Definitions of data items

The information shown in the tables for the various items defined below relates to all the operations of enterprises (within the scope of the censuses) in existence at any time during the year 1968–69, unless otherwise stated.

Number of enterprises. The number of enterprises mainly engaged in mining, manufacturing, electricity and gas production and distribution, wholesale trade, retail trade and selected service industries.

Persons employed at the end of June 1969. Working proprietors at 30 June 1969 and employees on the payroll for the last pay period in June 1969. In the case of enterprises operating wholesale trade, retail trade or selected service establishments, unpaid helpers working at least 15 hours during the last week of June are included.

Wages and salaries. The wages and salaries paid during the year ended June 1969 to all employees of the enterprise.

* The relevant publication is *Integrated Economic Censuses 1968–69, Enterprise Statistics: Details by Industry Class, Australia* (Ref. No. 17.15).

Turnover. Sales of goods to other enterprises, commission revenue and repair and service revenue received from other enterprises, government bounties and subsidies and all other operating revenue from outside the enterprise except rent and leasing revenue, interest, royalties, dividends and receipts for administrative services provided to related enterprises in Australia. Also included is the value of capital work done by the enterprise, and the value of equipment withdrawn from stock, for own use or for rental or lease outside the enterprise.

Purchases and selected expenses. Purchases by the enterprise of goods for manufacture or resale, containers, stores and supplies, together with charges for fuels and electricity, outward freight and cartage, motor vehicle running expenses, sales commission payments, repairs and maintenance, and commission and sub-contract work. Selected expenses was defined for purposes of tabulating establishment statistics and does not include wages and salaries, interest, rent, depreciation and overhead expenses such as travelling expenses, insurance premiums, legal costs, bad debts and telephone, etc. charges.

Stocks at 30 June 1968 and 30 June 1969. All the stocks of materials, fuels, etc., work-in-progress and finished goods owned by the enterprise.

Value added. Turnover, plus increase (less decrease) in the value of stocks, less purchases and selected expenses. While value added has been used in the censuses as the basic measure of an industry's contribution to total economic activity it must not be inferred that when wages and salaries are deducted from value added, the whole of the surplus is available for profit. There are additional expenses such as depreciation, workers' compensation insurance, payroll tax, income tax, rates, advertising, interest on borrowed funds, bad debts and other sundry charges which are not taken into account in arriving at value added.

Fixed capital expenditure. Outlay on new and second-hand fixed tangible assets less disposals. Includes fixed capital expenditure by enterprises for establishments not yet in operation.

Number of establishments. The number of establishments in operation during the year which were mainly engaged in mining, manufacturing, electricity and gas production and distribution, wholesale trade, retail trade and selected service industries and which were operated by enterprises mainly engaged in these industries. Establishments which were operated by these enterprises but which were not mainly engaged in any of these industries are not included in this item.

Description of tables

The first table shows summary statistics for enterprises mainly engaged in mining, manufacturing, electricity and gas production and distribution, wholesale trade, retail trade and selected service industries for the year ended 30 June 1969, for Australia. In this table, enterprises are classified by industry sub-division in accordance with the Australian Standard Industrial Classification (ASIC).

The second table shows selected statistics classified by broad industry and employment size of enterprise. Whereas the statistics in the first table relate to all enterprises which were in existence during the whole or any part of the year ended June 1969, the statistics in this table relate only to those enterprises which were in existence at the end of June 1969. For the purpose of preparing this table, enterprises were classified on the basis of the number of persons (including working proprietors and unpaid helpers) employed by the enterprise in the last pay-period in June 1969 (at the end of June 1969 in the case of working proprietors and unpaid helpers).

SUMMARY OF OPERATIONS BY INDUSTRY SUB-DIVISION, AUSTRALIA, 1968-69

ASIC code	Industry description	Persons employed at end of June 1969		Wages and salaries \$m	Turn- over \$m	Pur- chases and selected expenses \$m	Stocks at—		Value added \$m	Fixed capital expen- diture \$m	Estab- lish- ments (a) No.
		Enter- prises No.	No.				30 June 1968 \$m	30 June 1969 \$m			
	Mining excluding services to mining—										
11	Metallic minerals . . .	277	27,644	123	626	209	91	110	436	250	331
12	Coal . . .	n.a.; Included with ASIC Sub-division '13. Crude petroleum including natural gas'.									
13	Crude petroleum in- cluding natural gas . . .	93	12,599	63	219	93	13	16	129	164	146
14	Construction materials . . .	522	6,806	25	146	67	10	10	79	11	749
15	Other non-metallic minerals . . .	195	1,210	3	15	6	1	2	9	10	234
11-15	<i>Total mining ex- cluding services to mining</i> . . .	<i>1,087</i>	<i>48,259</i>	<i>214</i>	<i>1,007</i>	<i>375</i>	<i>116</i>	<i>138</i>	<i>653</i>	<i>435</i>	<i>1,460</i>
	Manufacturing—										
21-22	Food, beverages and to- bacco . . .	4,221	198,046	577	4,123	2,902	520	563	1,264	145	6,250
23	Textiles . . .	820	61,989	170	746	430	168	172	321	32	991
24	Clothing and footwear . . .	3,334	118,021	250	851	467	144	155	395	19	3,620
25	Wood, wood products and furniture . . .	5,711	81,122	216	873	492	123	130	388	25	6,180
26	Paper and paper pro- ducts, printing . . .	3,189	102,213	330	1,232	619	163	172	622	86	3,460
27	Chemical, petroleum and coal products . . .	997	62,484	228	1,532	876	296	291	652	101	1,510
28	Non-metallic mineral pro- ducts . . .	1,356	58,015	196	781	391	116	125	400	62	1,942
29	Basic metal products . . .	524	100,361	379	1,861	1,055	355	387	837	186	729
31	Fabricated metal pro- ducts . . .	4,607	109,472	331	1,294	713	220	234	596	45	5,108
32	Transport equipment . . .	1,351	108,031	355	1,631	929	330	350	721	61	1,560
33	Other machinery and equipment . . .	4,341	185,044	578	2,155	1,203	504	573	1,021	88	5,164
34	Miscellaneous manu- facturing . . .	2,612	69,919	203	826	450	160	176	392	41	2,933
21-34	<i>Total manufacturing</i> . . .	<i>33,063</i>	<i>1,254,717</i>	<i>3,811</i>	<i>17,904</i>	<i>10,526</i>	<i>3,099</i>	<i>3,329</i>	<i>7,608</i>	<i>890</i>	<i>39,447</i>
36	Total electricity and gas . . .	59	60,278	236	815	246	69	72	571	286	127
46-47	Total wholesale trade . . .	25,446	345,846	992	13,187	11,010	1,790	2,157	2,545	229	33,296
48	Total retail trade . . .	121,060	701,543	1,154	11,966	9,200	1,205	1,316	2,877	158	133,992
91-93	Total selected service industries . . .	25,665	216,352	352	1,756	916	42	48	845	95	27,053
	<i>Total retail trade and selected service in- dustries</i> . . .	<i>146,725</i>	<i>917,895</i>	<i>1,506</i>	<i>13,723</i>	<i>10,116</i>	<i>1,247</i>	<i>1,363</i>	<i>3,723</i>	<i>253</i>	<i>161,045</i>
	<i>Total enterprises covered in censuses</i>	<i>206,380</i>	<i>2,626,995</i>	<i>6,760</i>	<i>46,636</i>	<i>32,274</i>	<i>6,321</i>	<i>7,059</i>	<i>15,099</i>	<i>2,092</i>	<i>235,375</i>

(a) Includes only establishments predominantly engaged in industries included within the scope of the censuses which were operated by enterprises within the scope of the censuses. It should be noted that the other items of data relate to the enterprise as a whole.

**SELECTED STATISTICS BY BROAD INDUSTRY AND EMPLOYMENT SIZE
ENTERPRISES AT END OF JUNE 1969 AUSTRALIA**

ASIC code	Industry description and employment size of enterprise	Persons employed at end of June 1969		Wages and salaries \$m	Turn-over \$m	Value added \$m	Establishments (a) No.
		Enterprises No.	No.				
11-15	Mining excluding services to mining—						
	Less than 10 persons . . .	715	2,242	4.9	26.1	15.6	744
	10 to 19 persons . . .	96	1,267	4.3	28.1	17.8	129
	20 to 49 persons . . .	70	2,095	7.7	34.1	19.7	117
	50 to 99 persons . . .	42	2,951	12.7	46.7	28.9	76
	100 to 499 persons . . .	55	12,334	54.9	257.5	156.8	176
	500 or more persons . . .	25	27,190	129.0	610.7	413.0	131
	<i>Total</i>	<i>1,003</i>	<i>48,079</i>	<i>213.5</i>	<i>1,003.1</i>	<i>651.8</i>	<i>1,373</i>
21-34	Manufacturing—						
	Less than 10 persons . . .	18,418	75,299	154.7	745.3	343.1	18,595
	10 to 19 persons . . .	5,962	81,209	215.8	862.3	385.1	6,306
	20 to 49 persons . . .	4,393	133,553	365.8	1,520.0	637.7	4,953
	50 to 99 persons . . .	1,626	111,846	321.2	1,488.8	590.3	2,278
	100 to 499 persons . . .	1,535	315,935	950.3	4,790.7	1,913.9	3,599
	500 or more persons . . .	357	536,849	1,784.7	8,388.0	3,718.6	2,907
	<i>Total</i>	<i>32,291</i>	<i>1,254,691</i>	<i>3,792.6</i>	<i>17,795.2</i>	<i>7,588.7</i>	<i>38,638</i>
36	Electricity and gas—						
	Less than 10 persons . . .	14	68	0.2	1.0	0.6	17
	10 to 19 persons . . .	4	59	0.2	0.6	0.3	4
	20 to 49 persons . . .	9	218	0.7	4.1	2.0	12
	50 to 99 persons . . .	5	305	1.0	5.7	2.0	7
	100 to 499 persons . . .	9	2,174	7.4	28.8	19.8	9
	500 or more persons . . .	14	57,454	226.9	775.0	547.2	74
	<i>Total</i>	<i>55</i>	<i>60,278</i>	<i>236.2</i>	<i>815.2</i>	<i>571.8</i>	<i>123</i>
46-47	Wholesale trade—						
	Less than 10 persons . . .	18,780	66,883	139.3	2,148.0	400.4	19,215
	10 to 19 persons . . .	2,887	38,012	106.2	1,476.8	264.7	3,547
	20 to 49 persons . . .	1,520	38,652	128.9	1,973.1	317.8	2,507
	50 to 99 persons . . .	492	33,478	97.8	1,257.8	244.3	1,367
	100 to 499 persons . . .	343	68,382	205.0	3,117.3	490.1	2,335
	500 or more persons . . .	80	100,399	309.7	3,006.9	800.5	2,916
	<i>Total</i>	<i>24,102</i>	<i>345,806</i>	<i>986.9</i>	<i>12,979.9</i>	<i>2,517.8</i>	<i>31,887</i>
48	Retail trade—						
	Less than 10 persons . . .	107,726	349,984	358.3	4,792.9	1,207.9	109,771
	10 to 19 persons . . .	5,919	76,122	155.3	1,354.2	339.5	8,121
	20 to 49 persons . . .	1,881	53,689	126.3	1,213.2	272.5	3,815
	50 to 99 persons . . .	414	28,412	71.7	791.7	168.1	1,461
	100 to 499 persons . . .	299	58,048	140.6	1,416.3	324.8	3,050
	500 or more persons . . .	67	135,229	291.1	2,186.6	511.8	2,959
	<i>Total</i>	<i>116,306</i>	<i>701,484</i>	<i>1,143.3</i>	<i>11,754.8</i>	<i>2,824.5</i>	<i>129,177</i>
91-93	Selected service industries—						
	Less than 10 persons . . .	19,263	71,372	80.7	482.5	228.1	19,437
	10 to 19 persons . . .	3,273	43,792	73.1	376.8	172.0	3,580
	20 to 49 persons . . .	1,687	49,029	91.1	453.6	208.2	2,008
	50 to 99 persons . . .	331	22,149	41.6	181.4	91.3	483
	100 to 499 persons . . .	135	22,269	44.8	170.7	100.6	252
	500 or more persons . . .	9	7,696	16.0	54.3	31.7	309
	<i>Total</i>	<i>24,698</i>	<i>216,307</i>	<i>347.2</i>	<i>1,719.2</i>	<i>831.8</i>	<i>26,069</i>

For footnotes see end of table.

SELECTED STATISTICS BY BROAD INDUSTRY AND EMPLOYMENT SIZE
ENTERPRISES AT END OF JUNE 1969 AUSTRALIA—*continued*

ASIC code	Industry description and employment size of enterprise	Persons employed at end of June 1969		Wages and salaries	Turn-over	Value added	Establishments (a)
		Enterprises	No.	\$m	\$m	\$m	No.
Total enterprises covered in censuses—							
	Less than 10 persons	164,916	565,848	738.1	8,195.8	2,195.7	167,779
	10 to 19 persons	18,141	240,461	554.8	4,098.8	1,179.3	21,687
	20 to 49 persons	9,560	277,236	720.5	5,198.1	1,457.8	13,412
	50 to 99 persons	2,910	199,141	545.9	3,772.1	1,124.9	5,672
	100 to 499 persons	2,376	479,142	1,403.0	9,781.2	3,005.9	9,421
	500 or more persons	552	1,343,959	2,757.5	15,021.7	6,022.8	9,296
	Total	198,455	2,626,645	6,719.8	46,067.7	14,986.5	227,267

(a) Includes only establishments predominantly engaged in industries included within the scope of the censuses which were operated by enterprises within the scope of the censuses. It should be noted that the other items of data relate to the enterprise as a whole.

INDUSTRY CONCENTRATION STATISTICS

In 1974 the Bureau published the first statistics relating to *Industry concentration* compiled from data collected in the Integrated Economic Censuses in respect of the year ended 30 June 1969*. These statistics supplement the enterprise statistics (see page 1107) and the large body of establishment and commodity statistics published in respect of these censuses.

Meaning and limitations of concentration statistics

Industry concentration statistics are concerned with providing measures of the extent to which a few firms are dominant in individual industries. They are a useful aid in assessing the degree of competition existing among firms engaged in an industry.

In interpreting the measures of industry concentration presented in the table, several qualifications should be borne in mind. In particular, the use of these statistics to evaluate the competitive position of firms should be approached with caution for the following reasons:

- (a) An industry comprises all establishments (factories, shops, mines etc.) classified to it on the basis of their *predominant* activity (e.g. in the case of manufacturing, on the basis of the commodities which account for the major part of their production). These statistics provide measures of concentration for whole industries; they are not measures of concentration in the markets for individual commodities.
- (b) The statistics of industry concentration do not take account of the effect on domestic market supplies, of overseas imports and exports of commodities.

Types of unit

In order to consider the measurement of industry concentration it is necessary to understand the definitions of the types of business units identified and standardised for the purpose of the integrated censuses. The business units are at three levels: the establishment, the enterprise and the enterprise group (see page 1107 for the definitions of each level of unit).

Industry concentration statistics are concerned with measuring the degree of control over industry operations (as measured by *establishment* statistics) which is exercised by a few *enterprise groups*. For this purpose, only those establishments which are under common ownership or control (i.e. which are owned or controlled by the same enterprise group) and which are mainly engaged in a particular industry are brought together to represent the involvement of that enterprise group in that industry.

* The relevant publication is *Integrated Economic Censuses: 1968-69, Industry Concentration Statistics, Details by Industry Class, Australia* (Ref. No. 17.14).

Definitions of data items

The information shown in the table for the various items defined below* relates to establishments in operation at any time during the year 1968-69, unless otherwise stated.

Number of enterprise groups. Number of enterprise groups owning or controlling establishments which were mainly engaged in mining, manufacturing, electricity and gas production and distribution, wholesale trade, retail trade and selected service industries and which were in operation at the end of June 1969.

Number of establishments. The number of establishments in operation at the end of June 1969 mainly engaged in the above industries.

Turnover†.* Sales of goods (including transfers out of goods to other establishments of the same enterprise); bounties and subsidies on production; all other operating revenue from outside the enterprise (such as commission, repair and service revenue); capital work done for own use or for rental or lease.

Value added. Turnover plus increase (less decrease) in the value of stocks, less purchases and selected expenses. Value added is the basic measure of an industry's contribution to total economic activity. The item *purchases and selected expenses* refers to purchases of goods (including transfers in of goods from other establishments of the same enterprise) for manufacture or resale, containers, stores and supplies, together with charges for fuels and electricity, outward freight and cartage, motor vehicle running expenses, sales commission payments, repairs and maintenance and commission and sub-contract work.

Persons employed at end of June 1969. Working proprietors at 30 June 1969 and employees on payroll for the last pay period in June 1969 including those employed at separately located administrative offices and ancillary units. In the case of retail trade and selected service establishments, unpaid helpers working at least 15 hours during the last week of June are included.

Fixed capital expenditure. Outlay on new and second-hand fixed tangible assets, less disposals. Includes fixed capital expenditure during 1968-69 on establishments not in operation by the end of June 1969.

Description of table

The table below presents a summary of industry concentration. Selected statistics and concentration ratios are shown for mining, manufacturing, electricity and gas production and distribution, wholesale trade, retail trade and selected service industries.

Method used to calculate concentration ratios

Establishments (and related administrative offices and ancillary units) engaged in an industry and belonging to the same enterprise group were brought together and the data reported for them were aggregated. In this way it was possible to identify the contribution to industry totals by establishments operating under common ownership or control, i.e. to measure the involvement, in terms of these items, of an enterprise group in an industry.

Enterprise groups were ranked in descending order according to the size of the contribution of their establishments to the total *turnover* of the industry.

For the purpose of compiling the table, the ranked enterprise groups were brought together into the following cumulative size categories: largest 12 enterprise groups; largest 25 enterprise groups; largest 50 enterprise groups; largest 100 enterprise groups; and largest 200 enterprise groups.

* Concentration ratios relating to 'Turnover' are not shown in the table. However, 'Turnover' was used as the basis for ranking enterprise groups according to the size of the contribution of their establishments to an industry.

† Sales to establishments operated by another enterprise which is owned or controlled by the *same enterprise group* are included.

SELECTED STATISTICS AND CONCENTRATION RATIOS BY BROAD INDUSTRY
AUSTRALIA, 1968-69

ASIC code	Industry description and item	Industry total	Enterprise groups ranked by contribution to industry turnover				
			Largest 12	Largest 25	Largest 50	Largest 100	Largest 200
11-15	Mining excluding services to mining—						
	Enterprise groups . No.	1,114	12	25	50	100	200
	Ratio		0.01	0.02	0.04	0.09	0.18
	Establishments . No.	1,494	90	214	298	396	557
	Ratio		0.06	0.14	0.20	0.27	0.37
	Value added . \$m	750	444	580	660	705	728
	Ratio		0.59	0.77	0.88	0.94	0.97
	Persons employed at end of June 1969 . No.	55,519	26,949	36,696	44,668	49,795	52,191
	Ratio		0.49	0.66	0.80	0.90	0.94
	Fixed capital expenditure . \$m	303	74	124	235	274	278
	Ratio		0.24	0.41	0.76	0.90	0.92
21-34	Manufacturing—						
	Enterprise groups . No.	26,330	12	25	50	100	200
	Ratio		..	..	..	..	0.01
	Establishments . No.	35,940	402	654	1,017	1,654	2,381
	Ratio		0.01	0.02	0.03	0.05	0.07
	Value added . \$m	7,475	1,202	1,568	2,134	2,814	3,657
	Ratio		0.16	0.21	0.29	0.38	0.49
	Persons employed at end of June 1969 . No.	1,289,583	160,698	212,598	300,720	407,770	538,038
	Ratio		0.12	0.16	0.23	0.32	0.42
	Fixed capital expenditure . \$m	903	156	208	327	433	514
	Ratio		0.17	0.23	0.36	0.48	0.57
36	Electricity and gas production and distribution—						
	Enterprise groups . No.	180	12	25	50	100	..
	Ratio		0.07	0.14	0.28	0.56	..
	Establishments . No.	218	16	37	76	136	..
	Ratio		0.07	0.17	0.35	0.62	..
	Value added . \$m	760	597	669	723	756	..
	Ratio		0.79	0.88	0.95	0.99	..
	Persons employed at end of June 1969 . No.	71,124	52,265	60,373	66,447	70,584	..
	Ratio		0.73	0.85	0.93	0.99	..
	Fixed capital expenditure . \$m	377	302	335	352	376	..
	Ratio		0.80	0.89	0.93	1.00	..
46-47	Wholesale trade—						
	Enterprise groups . No.	23,608	12	25	50	100	200
	Ratio		..	..	..	..	0.01
	Establishments . No.	33,343	947	1,355	1,881	2,582	3,985
	Ratio		0.03	0.04	0.06	0.08	0.12
	Value added . \$m	2,776	370	496	703	871	1,168
	Ratio		0.13	0.18	0.25	0.31	0.42
	Persons employed at end of June 1969 . No.	358,817	25,509	40,377	59,432	80,696	116,300
	Ratio		0.07	0.11	0.17	0.22	0.32
	Fixed capital expenditure . \$m	186	13	20	50	62	81
	Ratio		0.07	0.11	0.27	0.33	0.44

SELECTED STATISTICS AND CONCENTRATION RATIOS BY BROAD INDUSTRY
AUSTRALIA, 1968-69—*continued*

ASIC code	Industry description and item	Industry total	Enterprise groups ranked by contribution to industry turnover					
			Largest 12	Largest 25	Largest 50	Largest 100	Largest 200	
48	Retail trade—							
	Enterprise groups . No.	112,414	12	25	50	100	200	
	Ratio		..	..	..	..	..	..
	Establishments . No.	129,930	2,114	2,778	3,483	4,392	5,724	
	Ratio		0.02	0.02	0.03	0.03	0.04	0.04
	Value added . \$m	2,870	421	500	599	724	864	
	Ratio		0.15	0.17	0.21	0.25	0.30	
	Persons employed at end of June 1969 . No.	701,523	105,350	121,665	138,128	158,180	180,364	
	Ratio		0.15	0.17	0.20	0.23	0.26	0.26
	Fixed capital ex- penditure . \$m	148	29	37	35	38	45	
	Ratio		0.20	0.25	0.24	0.26	0.30	
91-93	Selected service in- dustries—							
	Enterprise groups . No.	24,372	12	25	50	100	200	
	Ratio		..	..	..	..	..	0.01
	Establishments . No.	26,341	457	715	920	1,021	1,168	
	Ratio		0.02	0.03	0.03	0.04	0.04	0.04
	Value added . \$m	864	50	85	119	157	205	
	Ratio		0.06	0.10	0.14	0.18	0.24	
	Persons employed at end of June 1969 . No.	220,739	10,524	18,607	25,058	32,126	41,004	
	Ratio		0.05	0.08	0.11	0.15	0.19	
	Fixed capital ex- penditure . \$m	96	4	5	10	13	20	
	Ratio		0.04	0.05	0.10	0.14	0.20	
	Total industries covered in censuses—							
	Enterprise groups . No.	180,828	12	25	50	100	200	
	Ratio		..	..	..	..	..	..
	Establishments . No.	227,266	2,360	2,724	4,890	6,637	9,272	
	Ratio		0.01	0.01	0.02	0.03	0.04	0.04
	Value added . \$m	15,495	1,540	2,477	3,297	4,360	5,734	
	Ratio		0.10	0.16	0.21	0.28	0.37	
	Persons employed at end of June 1969 . No.	2,697,305	215,416	303,783	422,333	566,720	755,064	
	Ratio		0.08	0.11	0.16	0.21	0.28	0.28
	Fixed capital ex- penditure . \$m	2,013	154	404	492	715	918	
	Ratio		0.08	0.20	0.24	0.36	0.46	

INTERSTATE TRADE

Prior to the federation of the Australian Colonies (now States) each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Australian Government under the provisions of the Constitution (section 93). On the expiry of the 'bookkeeping' period these records were discontinued as from 13 September 1910, and the last published statements were for the year 1909. Later, the Governments of Western Australia and Tasmania revived the records, and relevant statistics are available again for those States. A detailed collection for Queensland was re-introduced from July 1953.

At the Conference of Statisticians held in January 1928 it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities. Complete interstate trade statistics are now published in detail for Queensland, Western Australia and Tasmania by the Deputy Commonwealth Statisticians in those States, and incomplete statistics, relating mainly to trade with Western Australia and Tasmania, by the Deputy Commonwealth Statisticians in the remaining States.

STATISTICAL ORGANISATION IN AUSTRALIA

Early development of Australian statistics

Statistical organisation in Australia has its origin in the 'Blue Books' which, in the Crown Colony days, were prepared annually for the information of the Colonial Office. Although intended primarily for administrative purposes, these documents were important sources of statistical data, and formed the basis from which later statistical publications were developed. Following the advent of responsible government, the 'Blue Book' was succeeded in all States by 'Statistical Registers' which were still largely summaries of the 'by-product' statistics of government administrative departments.

The growing need for quantitative data on the progress of the young Australian States led eventually to the appointment of official statisticians. Conferences were held between the statisticians to allow for the interchange of ideas and to provide for uniform State statistics which could be aggregated to Australian totals. Six conferences of statisticians were held before the establishment of the Commonwealth Bureau of Census and Statistics in 1906—in 1861, 1875, 1890, 1900, 1902 and 1903. These conferences have been continued to the present and a representative from New Zealand attended up to 1928.

Origins of the Australian* Bureau of Statistics

Under the provisions of Section 51 of the Commonwealth Constitution, power is conferred on the Commonwealth Parliament 'to make laws for the peace, order, and good government of the Commonwealth with respect to . . .' (*inter alia*) '(XI.) Census and Statistics'. The *Census and Statistics Act* 1905 was passed, and in 1906 the Commonwealth Bureau of Census and Statistics was created. A conference of Statisticians in 1906 defined the relations between the Commonwealth and State Bureaux, and in each case the State Statistician became the representative in his own State of the Commonwealth Statistician for the purpose of administering the Commonwealth Act. In addition, each State had its own statistical legislation, and although these were not identical for all States, they embodied common principles. The Commonwealth Bureau endeavoured to use the services of the existing State statistical organisations whenever possible, undertaking the initial collection of statistics only in fields not covered by the States, or where efficiency demanded centralisation.

Integration of statistical services

The creation of the Bureau in 1906, the frequent conferences of Commonwealth and State Statisticians, and the close and increasing liaison between officers dealing with the same subjects in the State and Commonwealth fields did much to promote uniformity in official statistics and methods employed in their collection throughout Australia. However, the complete realisation of this aim could not be achieved with seven separate statistical systems, even with the utmost co-operation of those concerned. This became apparent when economic problems following the 1914-18 War drew attention to deficiencies in Australian statistical data.

The first step towards integration was taken in 1924, when, in response to a proposal by the Prime Minister to the Premiers' Conference that State and Commonwealth Statistical Bureaux be amalgamated, the Tasmanian Office was transferred to the Commonwealth and has since functioned as a Commonwealth office which also serves State statistical needs.

The varied economic and social problems of the 1920's and 1930's, the 1939-45 War and the post-war economic boom, and the development during and since the War of a volume of new statistics, imposed a severe strain on the statistical systems and increased the complexities of the several administrations in their efforts to secure and maintain uniformity in statistical collections.

The difficulties of maintaining efficient statistical services were further emphasised during the immediate post-war years when the problems of planning for post-war reconstruction greatly increased the demand for current economic statistics. In 1949, discussions with the Premiers were initiated by the Prime Minister, with the object of integrating the statistical services of the Commonwealth and the States. Following negotiations, all State Governments accepted the terms of draft agreements to integrate their respective statistical offices with that of the Commonwealth, and effect was given to this by the *Statistics (Arrangements with States) Act* 1956. This legislation was designed to enable the Commonwealth to enter into an agreement with any State to effect an amalgamation of Commonwealth and State statistical offices and services. The object of such an agreement was to establish an integrated statistical service, with branches in each State, operated by Commonwealth statistical officers under the immediate direction of a Deputy Commonwealth Statistician who would hold office under both the Commonwealth and State Governments. It was understood that both Commonwealth and State were to be adequately served with statistics, and no State would be

* During 1974, the title 'Commonwealth Bureau of Census and Statistics', was changed to 'Australian Bureau of Statistics', and executive responsibility for the Bureau was transferred from the Treasurer to the Special Minister of State.

required to surrender its existing powers in the field of statistics. Integration of the Commonwealth and State statistical services was finally accomplished when the integration arrangement with Victoria came into effect on 15 September 1958.

The relationship which at present exists between the Bureau and the several State Governments is a reflection of these arrangements. Each State has retained its power to collect statistics under State laws, but the Commonwealth provides the staff and the finance, and is responsible for all statistical work required by both Commonwealth and State Governments. Conferences of the Commonwealth and Deputy Commonwealth Statisticians are held annually to discuss current and projected future operations of the Integrated Statistical Service.

Scope of the Australian Bureau of Statistics

The scope of the Bureau has continually been widened. Additional requirements in the administrative, industrial, financial and scientific spheres have led to the development of many new statistical collections. All these activities are covered by the Census and Statistics Act, which empowers the Statistician to collect information and contains stringent provisions to ensure that the secrecy of information provided by individual persons and businesses is preserved.

In the Australian centralised official statistical service, it is recognised that there is a danger that official statisticians may become isolated from the thinking of the users of statistics and insensitive to the problems of the firms or individual persons whose responsibility it is to supply statistical information. The dangers inherent in this situation are for the most part obviated by the six State Offices of the Bureau keeping in close contact with the individual businesses which use statistics and supply statistical information, and special steps are taken to ensure that users have adequate scope for expression of their needs and that requests by the Bureau for information are kept within reasonable and practical limits. The methods towards this end which have been adopted in the Bureau are reflected in its organisational structure.

Organisation of the Central Office of the Australian Bureau of Statistics

The Central Office of the Bureau is organised into a number of divisions, which are further divided into branches and sections. The resulting structure is a compromise between a subject-matter and functional division of responsibility. The various aspects of economic and social statistical work undertaken by the Bureau are covered by four of the six divisions in the Bureau's organisation, the remaining divisions being concerned with consultancy and the provision of ADP and other specialist services.

Demography, Social and Manpower Division

Demography, social, manpower and labour statistics are produced by this division of the Bureau which is also responsible for conducting the quinquennial census of population and housing.

Economic Accounts Division

This division is responsible for statistics used in the national accounts and budget papers, public finance and taxation statistics, price and quantum indexes and input-output tables. Most of the planning and preliminary preparations for the Bureau's first Survey of Household Income and Expenditure, which began in 1974, was organised by this division.

Economic Censuses and Surveys Division

Transport, internal trade, rural, construction, private finance, secondary production and service industry statistics are produced by this division which is also responsible for the Bureau's Integrated Economic Censuses.

Overseas Transactions Division

Statistics of overseas trade and shipping, balance of payments, overseas investment and overseas participation in Australian industry, are produced by this division of the Bureau.

Development and Co-ordination Division

Statistical standards, methodology, sampling, special surveys and consultation on sampling and methodological procedures are included in the responsibilities of this division. The development of policy matters affecting the work of the Bureau as a whole, including the Bureau's involvement in international statistical affairs, is the function of the Co-ordination Branch located in this division.

Computer Services Division

The Computer Services Division provides computer processing facilities for the Bureau and a number of other Government departments.

In addition to these divisions the Bureau has a Management Services Branch which provides special services including publication, training, library facilities and staff services.

A broadly similar organisational pattern exists in the State offices of the Bureau, although local requirements have given rise to differences in detail.

At 30 June 1974, the staff of the Bureau numbered 3,590. Of the total staff, 1,436 were employed in the Bureau's Central Office in Canberra, of whom 508 were university graduates. Expenditure for 1973-74 amounted to \$30,700,000.

Relation of the Bureau to other Commonwealth Departments

The Commonwealth Statistician is the co-ordinating authority on all statistical activities in Government departments, and where any new statistical field is to be established involving the regular collection of statistics, the Commonwealth Statistician must be consulted to ensure that they are necessary, that they are based on sound statistical methods and that their needs are being met by the most economical means and without duplication of effort.

The Bureau provides methodological and general statistical advice to Government departments and instrumentalities from time to time as required. However, for some departments, which have a continuing need for specialised statistical services, the Bureau provides, from its own staff, the key personnel to serve these needs.

STATISTICAL AND OTHER OFFICIAL PUBLICATIONS OF AUSTRALIA

The official statistical publications of Australia may be divided bibliographically into two main divisions, namely: (i) Australian Government publications dealing both individually and collectively with the several States of Australia; and (ii) State publications dealing with individual States only. Australian Government publications containing statistics may be grouped under two heads, namely: (i) publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers. State publications may similarly be grouped into publications issued by the Deputy Commonwealth Statistician in each State, and State Parliamentary and Departmental Reports and Papers. The statistics contained in the second group in each case are in the main incidental to the primary purpose of the particular report or paper.

Publications issued by the Commonwealth Statistician**Principal statistical publications issued to date**

The following is a list of the principal statistical publications issued from the Central Office of the Australian Bureau of Statistics since its inauguration. Minor changes in titles have not been referred to. Copies of a number of these publications, particularly earlier issues, are not now available.

Australian Capital Territory Statistical Summary. Annually, 1963 to 1974.

Balance of Payments. Half-yearly, 1946-47 to 1971-72; annually, 1972-73.

Balance of Payments, Australia. Statements Nos 1 to 3, 1928-29 to 1951-52.

Banking and Currency. Bulletin, annually, 1961-62 and 1962-63 (combined issue) to 1972-73.

† *Building and Construction.* Bulletin, annually, 1964-65 to 1971-72.

Causes of Death. Bulletin, annually, 1963 to 1972.

Census (1911) Results. Bulletin. Vols I (Statistician's Report), II and III, with Appendix *Mathematical Theory of Population.*

Census (1921) Results. Bulletins, Nos 1 to 26. Parts I to XVI, forming Vol. I, and Parts XVII to XXIX (Part XXVII, Life Tables), forming, with the Statistician's Report, Vol. II.

Census (1933) Results. Bulletins, Nos 1 to 25. Parts I to XIV, forming Vol. I, Parts XV to XXVIII, forming Vol. II, and Parts XXIX to XXXVII, forming, with the Statistician's Report and Australian Life Tables, 1932-1934, Vol. III.

Census (1947) Results. Bulletins, Nos 1 to 25. Parts I to XVI, forming Vol. I, Parts XVII to XIX, forming Vol. II, and Parts XX to XXVIII, forming, with the Statistician's Report and Australian Life Tables, 1946-1948, Vol. III.

Census (1954) Results. Bulletins, Nos 1 to 3. Vols I to VI, comprising respectively Parts I to V for each State; Vol. VII, comprising Parts I to V for the Australian Territories; Vol. VIII, comprising Parts I to III for Australia. Australian Life Tables, 1953-1955, and the Statistician's Report.

- Census (1961) Results.* Vols I to VI, comprising respectively Parts I to V for each State; Vol. VII, comprising Parts I to V for the Australian Territories; and Vol. VIII, comprising Parts I to III for Australia, Australian Life Tables, 1960–1962, and the Statistician's Report.
- Census (1966) Results.* Summarised results for each State and Territory and for Australia have been published in a series of mimeographed bulletins available from the Commonwealth Statistician. Final figures are contained in Vol. 1, comprising Parts I to XI; Vol. 2, Parts I to V; Vol. 3; Vol. 4, Parts I to VII; and Vol. 5, Parts I to VIII.
- Census (1971) Results.* Preliminary figures of dwellings and the characteristics of population have been issued. A series of bulletins containing final figures for each State and Territory and for Australia is now almost complete.
- **Conference of British Commonwealth Statisticians, 1951, Report of Proceedings.*
- **Dairying Industry (formerly Summary of Dairying Industry).* Bulletin, monthly, and half-yearly to 1971–72; annually 1973–74; first issue, September 1937.
- Demography.* Bulletin, annually, 1911 to 1969 and 1970 (combined issue). Commencing 1963, excludes details of causes of death, *see Causes of Death.*
- **Digest of Current Economic Statistics.* Monthly from August 1959 onward.
- **Enterprise Statistics, Details of Operations, Integrated Economic Censuses, 1968–69.*
- **Export Commodity Classification, Australian.* Annually, 1966–67 to 1973–74 (sectional revisions).
- Exports, Australian.* Annually, 1958–59 to 1973–74.
- **Factories, Principal Statistics, Summary.* Annually, 1948–49 to 1967–68.
- Finance.* Bulletin, 1907 to 1960–61. Commencing 1955–56, issued in two parts—Part I, Public and Private Finance; Part II, Commonwealth Taxation. Commencing 1961–62, issued as five separate bulletins, *see Banking, Finance (2), Insurance, and Taxation.*
- Finance, Commonwealth.* Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1969–70. (Commencing with the 1970–71 issue, title changed to *Public Authority Finance: Commonwealth Authorities*; commencing with the 1971–72 issue, title changed to *Public Authority Finance: Authorities of the Australian Government.*)
- Finance, Public Authority.* Bulletin, annually, 1969–70 first issue.
- Finance, Public Authority: Authorities of the Australian Government.* Bulletin, annually, 1973–74 (*see following publication.*)
- ‡*Finance, Public Authority: Commonwealth Authorities.* Bulletin, annually, 1970–71 and 1971–72. (commencing with the 1972–73 issue, title changed to *Public Authority Finance: Authorities of the Australian Government.*)
- Finance, State, Territory and Local Government Authorities, and Local Government Securities.* Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1967–68.
- **Food Production and the Apparent Consumption of Foodstuffs and Nutrients, Report on.* Bulletin, half-yearly, 1946–47 to 1947–48; annually, 1948–49 to 1972–73.
- **Fruit Growing Industry (formerly Summary of Fruit Growing Industry).* Bulletin, annually, 1944–45 to 1972–73.
- **Import Commodity Classification, Australian.* Annually, 1965–66 to 1973–74 (sectional revisions).
- Imports, Australian.* Bulletin, annually, 1967–68 to 1973–74.
- Imports Cleared for Home Consumption.* Annually, 1950–51 to 1973–74.
- **Industry Concentration Statistics, Details by Industry Class, Integrated Economic Censuses, 1968–69.*
- Insurance and Other Private Finance (other than Banking and Currency).* Bulletin, annually, 1961–62 and 1962–63 (combined issue) to 1970–71 and 1971–72 (combined issue).
- Labour and Industrial Statistics.* Memoranda and Reports, various, to 1922.
- Labour Report, 1913 to 1973.*
- Life Tables, Australian, 1901–1910. Australian Joint Life Tables, 1901–1910.*
- Life Tables, Australian, 1920–1922.*
- Life Tables, Australian, 1932–1934. Australian Joint Life Tables, 1932–1934.*
- Life Tables, Australian, 1946–1948.*
- Life Tables, Australian, 1953–1955.*
- Life Tables, Australian, 1960–1962.*
- Life Tables, Australian, 1965–1967.*
- **Livestock Statistics (formerly Summary of Livestock Statistics and Livestock Numbers).* Bulletin, annually, 1943 to 1974.
- Local Government in Australia, July 1919.*
- Manufacturing Commodities.* Bulletin, annually, 1963–64 and 1964–65 (combined issue) to 1966–67 and 1967–68 (combined issue).
- Manufacturing Commodities: Principal Materials Used.* Bulletin, annually, 1968–69 and 1969–70 (combined issue), 1971–72.

- **Manufacturing Establishments: Details of Operations by Industry Class*. Bulletin, annually, 1968–69, 1969–70, 1971–72, 1972–73.
- Manufacturing Industries*. Bulletins on individual industries, annually, 1936–37 to 1939–40, 1940–41 (issue incomplete) and 1944–45 to 1967–68.
- Manufacturing Industry*. Bulletin, annually, 1963–64 to 1967–68.
- Manufacturing Industry, Australian, Overseas Participation in, Part I—Overseas Ownership and Part II—Overseas Control*, 1962–63 and 1966–67.
- §*Mineral Industry, The Australian* (formerly *Minerals and Metals Bulletin*). Part II—*Quarterly Statistics* of a quarterly bulletin issued jointly with the Bureau of Mineral Resources.
- **Mining Establishments: Details of Operations*. Bulletin, annually, 1968–69 to 1970–71 (combined issue), 1972–73.
- Mining Industry, Australian, Overseas Participation in*. Bulletin, annually, 1967 and 1968. Title changed to *Foreign Ownership and Control of the Mining Industry*, 1971–72 to 1972–73.
- Monthly Review of Business Statistics*. October 1937 onwards.
- Motor Vehicles, Census of, 31 December 1955*. Bulletins, Nos 1 to 8.
- Motor Vehicles, Census of, 31 December 1962*. Bulletins, Nos 1 to 9.
- **Motor Vehicles, Census of, 30 September 1971*. Bulletins 1 to 9.
- Motor Vehicles, Survey of (1947–48), Results*. Bulletins, Nos 1 to 7.
- National Accounts, Australian (National Income and Expenditure)*, 1948–49 to 1961–62, first issue, mimeographed*, to 1973–74.
- ||*Non-rural Primary Industries*. Bulletin, annually, 1964–65 to 1967–68 and 1968–69 (combined issue).
- Non-rural Primary Industries and Value of Production*. Bulletin, annually, 1962–63 and 1963–64. (Commencing 1964–65 issued as two separate Bulletins, see *Non-rural Primary Industries*, and *Value of Production*.)
- Northern Territory Statistical Summary*. Annually, 1960 to 1974.
- **Occupation Survey (1945) Results*. Detailed tables.
- Official Year Book of the Commonwealth of Australia*. 1907 to present issue (No. 60). Issues Nos 40 to 51 also published in parts.
- Pocket Compendium of Australian Statistics* (formerly *Statistical Digest*). 1913, 1914, 1916 and 1918 to 1975, annually.
- Population and Vital Statistics*, Bulletins and Reports, various, 1906–1910.
- Primary Industries*. Bulletins, annually, 1950–51 to 1961–62 in two parts—Part I, Rural Industries; Part II, Non-rural Primary Industries and Value of Production. Commencing 1962–63, issued as two separate Bulletins, see *Rural Industries* and *Non-rural Primary Industries and Value of Production*.
- Primary Industries, Australian*. Report prepared for the Empire Producers Conference, Sydney, March 1938.
- Production*. Bulletin, annually, 1906 to 1949–50. From 1936–37 to 1949–50 issued in two parts—Part I, Secondary Industries; Part II, Primary Industries (including Total Recorded Production); thereafter separate Bulletins (see *Primary Industries* and *Secondary Industries*).
- Professional Papers*. Various. A full list appears in Official Year Book No. 13, page 3.
- **Publications of the Australian Bureau of Statistics*. Annually since 1950.
- Quarterly Summary of Australian Statistics* (replaced *Monthly Summary of Australian Statistics*). December 1917 onward.
- **Retail Establishments, Census of (1947–48), Results*. Bulletins, Nos 1 to 7.
- **Retail Establishments, Census of (1948–49), Results*. Bulletins, Nos 1 to 7.
- **Retail Establishments, Census of (1952–53), Results*. Bulletins, Nos 1 to 14.
- Retail Establishments, Census of (1956–57), Results*. Bulletins, Nos 1 to 8 (mimeographed*) and 9 to 15 (printed).
- Retail Establishments and Other Services, Census of (1961–62), Results*. Bulletins, Nos 1 to 7 (printed) and 8 to 9 (mimeographed*).
- Retail Establishments and Selected Service Establishments, Economic Censuses (1968–69) Results*. Final Bulletins.
- **Rural Holdings, Classification by Size and Type of Activity*, 1959–60. Bulletins, Nos 1 to 7.
- Rural Holdings, Classification by Size and Type of Activity*, 1965–66. Bulletins, Nos 1 to 7.
- Rural Holdings, Classification by Size and Type of Activity*, 1968–69. Bulletins, Nos 1 to 7.
- Rural Holdings, Size Classification of, 1955–56*. Bulletins, Nos 1 to 7.
- Rural Industries*. Bulletin, annually, 1962–63 to 1969–70.
- **Rural Land Use and Crop Production* (formerly *Summary of Crop Statistics*). Bulletin, annually, 1943–44 to 1970–71.
- **Rural Land Use, Improvements, Agricultural Machinery and Labour*. Bulletin, annually, 1972–73.
- Seasonally Adjusted Indicators*. Bulletin, annually, 1967 to 1975.

Secondary Industries. Bulletin, annually, 1950–51 to 1962–63 (commencing 1960–61 issued in two parts—Part I, Factory and Building Operations; Part II, Materials Used and Articles Produced in Factories). Commencing 1963–64 issued as separate bulletins, *see Manufacturing Establishments, Manufacturing Industry, Manufacturing Commodities, and Building and Construction*.

Social Insurance. Report to the Hon. the Minister for Trade and Customs, 1910.

Social Statistics. Bulletin, 1907 to 1915 annually, and 1918.

Superannuation for the Commonwealth Public Service. Report to the Hon. the Minister for Home Affairs, 1910.

Taxation Assessments, Commonwealth, Annually, 1961–62 to 1970–71.

Trade, Overseas. Bulletin, annually, 1906 to 1973–74.

**Trade, Overseas*, Preliminary Bulletin, annually, 1952–53 to 1973–74, in two parts—Part 1, Exports; Part 2, Imports. (*See also Exports, Australian; Imports, Australian; and Imports Cleared for Home Consumption.*)

Transport and Communication. Bulletin, 1906, 1908 to 1916 annually, 1919 to 1930 annually and 1932 to 1971–72 annually.

||*Value of Production*. Bulletin, annually, 1964–65 to 1968–69.

Wealth. The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.

**Wheat Industry* (formerly *Summary of the Wheat Situation*). Bulletin, periodically; first issue, July 1936; now issued annually, 1972–73, and 1973–74 (Preliminary), with annual supplement, 1972–73 (Preliminary).

**Wholesale Establishments, Census of* (1968–69), *Results*. Final Bulletin.

**Wool Production and Utilisation*. Bulletin, annually, 1952–53 to 1972–73.

* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print *see back* of this volume.

† Previously included in *Secondary Industries*, Part I—*Factory and Building Operations*.

‡ Prior to 1970–71 issue, title was *Commonwealth Finance*.

§ Copies available from the Bureau of Mineral Resources, Canberra and the Department of Minerals and Energy, Melbourne and Sydney.

|| Included in *Non-rural Primary Industries and Value of Production* prior to 1964–65.

Current or recent statistical publications

The Central and State offices of the Commonwealth Bureau of Census and Statistics issue approximately 2,300 publications (600 separate titles) in printed and mimeographed form annually. Information on these publications is contained in *Publications of the Australian Bureau of Statistics*, 1974, available free on request from the Commonwealth Statistician, Canberra. This contains a list of all Bureau publications, a subject index to show the Central Office publications in which information on the various subjects dealt with by the Bureau is to be found, and short descriptions of major Central Office publications. The information on issues in this publication is supplemented in monthly statements. At the end of this Year Book there is a list of the current printed publications of the Central Office of the Bureau: the prices shown after the number and year of issue are, in order, price excluding postage, and price including postage in Australia.

Commonwealth and State Parliamentary and Departmental Reports and Papers

No comprehensive list of current publications of this nature is available, but the National Library of Australia issues a quarterly publication (with annual cumulation) *Australian Government Publications*, a list of official publications of the Commonwealth, States and Territories, compiled from records of material received by the Library during the year.

The Australian Government Publishing Service, Canberra, issues a monthly publication *Australian Government Publications*. This publication lists Commonwealth publications currently becoming available or in stock, showing the titles and prices of Parliamentary Papers, Parliamentary Debates (Hansard), records of Parliamentary proceedings, Acts, Statutory Rules, Ordinances, and departmental bulletins and reports issued annually or irregularly.

Australian Government publications may be purchased *through the mail* from Mail Order Sales, Australian Government Publishing Service, P.O. Box 784, Canberra, A.C.T. 2600; *over the counter* from the Government Publications and Inquiry Centres in each State capital; and Bureau publications may also be purchased *through the mail or over the counter* from the Deputy Commonwealth Statistician in each State capital.

The National Library of Australia issues annually a publication *Australian Books*. *See the chapter Cultural Activities, Recreation and Travel* for further information concerning the National Library's publishing of Australian publications.

STATISTICAL SUMMARY: AUSTRALIA

In earlier issues of the Year Book, it was the practice to include in the Statistical Summary figures for every tenth year of the period 1861 to 1901, plus the latest year for which data were available. In each subsequent issue the latest year available was substituted for the year immediately preceding it until the next tenth year had been reached, and the earliest year in the series was eliminated as space was needed. In consequence of this system no single issue of the Year Book contained a continuous yearly series.

In this and recent issues of the Year Book, this defect has been remedied in part by the inclusion of a continuous series back to the year 1941 where possible, with earlier tenth years back to 1901 (the National Accounts series has been carried back to 1900-01 in single years). In issue No. 39, pages xxviii-xxix, some of the series are shown for every tenth year from 1861 to 1941. There are, however, discrepancies between the original series and the series now published.

Breaks in series, preliminary figures, etc., are indicated by the symbols shown on page xiii of this Year Book.

STATISTICAL SUMMARY: AUSTRALIA

DEMOGRAPHY

Year ended 31 December—	Population(a)			Natural increase	Over-seas migration(b)	Marriages		Divorces (c) and judicial separations		Births		Deaths		Infant deaths	
	Males	Fe-males	Per-sons			No.	Rate(d)	No.	Rate(d)	No.	Rate(d)	No.	Rate(d)	No.	Rate(e)
1901	'000	'000	'000	'000	'000	'000		No.	'000	'000	'000	'000	'000		
	2,005	1,820	3,825	56.6	17.8	28	7.3	398	103	27.2	46	12.2	10.7	103.6	
1911	2,382	2,192	4,574	74.3	77.7	39	8.8	509	122	27.2	48	10.7	8.4	68.5	
1921	2,799	2,712	5,511	82.1	17.3	47	8.6	1,490	136	25.0	54	9.9	9.0	65.7	
1931	3,333	3,220	6,553	61.9	-10.8	39	6.0	1,969	119	18.2	57	8.7	5.0	42.1	
1941	3,599	3,545	7,144	63.3	5.2	75	10.6	3,351	135	18.9	71	10.0	5.3	39.7	
1944	3,683	3,664	7,347	83.7	-2.2	68	9.3	5,691	153	21.0	70	9.5	4.8	31.3	
1945	3,722	3,708	7,430	90.3	-2.6	63	8.5	7,213	161	21.7	70	9.5	4.7	29.4	
1946	3,767	3,751	7,518	101.7	-15.1	79	10.6	7,235	176	23.6	75	10.0	5.1	29.0	
1947	3,828	3,810	7,638	108.9	10.6	76	10.1	8,803	182	24.1	73	9.7	5.2	28.5	
1948	3,909	3,884	7,792	101.1	55.1	75	9.7	7,253	178	23.1	77	10.0	4.9	27.8	
1949	4,047	3,998	8,046	106.0	150.0	73	9.2	6,626	181	22.9	75	9.5	4.6	25.3	
1950	4,191	4,116	8,307	112.4	152.5	76	9.2	7,428	191	23.3	78	9.6	4.7	24.5	
1951	4,311	4,217	8,528	111.5	111.4	77	9.2	7,330	193	23.0	82	9.7	4.9	25.2	
1952	4,426	4,314	8,740	120.1	94.0	74	8.6	7,110	202	23.4	82	9.5	4.8	23.8	
1953	4,503	4,399	8,903	122.0	42.9	71	8.0	8,043	202	22.9	80	9.1	4.7	23.3	
1954	4,598	4,492	9,090	120.5	68.2	71	7.9	6,528	202	22.5	82	9.1	4.5	22.5	
1955	4,714	4,598	9,312	125.6	97.3	72	7.8	6,782	208	22.6	82	8.9	4.6	22.0	
1956	4,829	4,702	9,531	126.0	94.0	72	7.6	6,492	212	22.5	86	9.1	4.6	21.7	
1957	4,930	4,814	9,744	135.4	78.7	74	7.6	6,374	220	22.9	85	8.8	4.7	21.4	
1958	5,026	4,921	9,947	138.8	65.4	74	7.5	6,994	223	22.6	84	8.5	4.6	20.5	
1959	5,132	5,029	10,161	137.8	76.8	74	7.4	7,370	227	22.6	89	8.9	4.9	21.5	
1960	5,253	5,139	10,392	141.9	90.1	75	7.3	6,709	230	22.4	88	8.6	4.6	20.2	
	(j)	(i)	(i)	(i)											
1961	5,374	5,268	10,643	151.8	61.5	77	7.3	6,751	240	22.8	89	8.5	4.7	19.5	
1962	5,470	5,376	10,846	144.4	62.5	79	7.4	7,290	237	22.2	93	8.7	4.8	20.4	
1963	5,572	5,484	11,055	141.3	71.6	81	7.4	7,515	236	21.6	95	8.7	4.6	19.5	
1964	5,683	5,597	11,280	129.1	99.3	86	7.7	7,967	229	20.6	101	9.0	4.4	19.1	
1965	5,794	5,712	11,505	123.7	104.9	94	8.2	8,534	223	19.6	100	8.8	4.1	18.5	
						(i)	(i)		(i)	(i)	(i)	(i)	(i)	(i)	
1966	5,891	5,814	11,705	119.2	86.9	96	8.3	9,921	224	19.3	105	9.0	4.2	18.7	
1967	5,992	5,920	11,912	126.6	91.9	100	8.5	9,747	229	19.4	103	8.7	4.2	18.3	
1968	6,108	6,037	12,146	131.4	113.1	106	8.8	10,791	241	20.0	110	9.1	4.3	17.8	
1969	6,238	6,169	12,407	143.7	129.0	112	9.2	10,984	250	20.4	106	8.7	4.5	17.9	
1970	6,365	6,299	12,663	144.5	122.9	116	9.3	12,249	258	20.6	113	9.0	4.6	17.9	
1971	6,484	6,424	12,908	165.7	84.6	118	9.2	13,002	276	21.6	111	8.7	4.8	17.3	
1972	6,570	6,521	13,091	155.2	27.8	114	8.8	15,636	265	20.4	110	8.5	4.4	16.5	
1973	6,656	6,613	13,269	136.8	40.4	113	8.6	16,165	248	18.8	111	8.4	4.1	16.7	

(a) At 31 December. (b) Excess of arrivals over departures. Minus sign (-) indicates excess of departures over arrivals. (c) Decrees made absolute, including decrees for nullity of marriage. (d) Number per 1,000 of mean population. (e) Number per 1,000 live births. (f) Excess of births over civilian deaths from September 1939 to June 1947. (g) Excludes movements of defence personnel from September 1939 to June 1947. (h) Excludes deaths of defence personnel from September 1939 to June 1947. (i) Includes Aborigines.

PRIMARY INDUSTRIES

AGRICULTURE

Season	Wheat			Oats			Barley			Maize		
	Area	Pro- duction	Average yield	Area	Pro- duction	Average yield	Area	Pro- duction	Average yield	Area	Pro- duction	Average yield
	mil hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes	'000 hectares	mil tonnes	tonnes
1901-02	2.07	1.05	0.51	187	0.18	0.95	30	0.03	1.14	119	0.18	1.50
1911-12	3.01	1.95	0.65	250	0.17	0.70	47	0.05	0.99	138	0.23	1.65
1921-22	3.93	3.51	0.89	297	0.22	0.74	121	0.14	1.14	124	0.20	1.61
1931-32	5.97	5.18	0.87	439	0.28	0.63	139	0.14	1.03	109	0.18	1.65
1941-42	4.86	4.53	0.93	591	0.40	0.68	317	0.41	1.29	122	0.19	1.55
1945-46	4.62	3.87	0.84	789	0.47	0.60	283	0.25	0.89	95	0.15	1.53
1946-47	5.33	3.18	0.60	699	0.28	0.40	303	0.26	0.87	105	0.15	1.40
1947-48	5.62	5.98	1.06	852	0.74	0.87	339	0.47	1.39	90	0.16	1.74
1948-49	5.09	5.18	1.02	716	0.43	0.60	409	0.40	0.99	74	0.13	1.79
1949-50	4.95	5.93	1.20	707	0.50	0.70	421	0.44	1.05	78	0.15	1.94
1950-51	4.72	5.00	1.06	711	0.46	0.64	437	0.52	1.19	69	0.12	1.75
1951-52	4.20	4.34	1.03	957	0.63	0.65	452	0.50	1.10	69	0.10	1.49
1952-53	4.13	5.30	1.28	1,119	0.79	0.71	557	0.79	1.43	70	0.13	1.79
1953-54	4.35	5.38	1.24	865	0.60	0.69	730	0.94	1.28	72	0.13	1.78
1954-55	4.32	4.58	1.06	1,042	0.60	0.57	684	0.67	0.97	69	0.13	1.88
1955-56	4.11	5.31	1.29	1,357	1.02	0.76	766	0.94	1.23	68	0.12	1.78
1956-57	3.19	3.65	1.15	1,034	0.64	0.62	847	1.12	1.32	73	0.14	1.90
1957-58	3.58	2.65	0.74	1,197	0.57	0.48	858	0.69	0.81	74	0.14	1.92
1958-59	4.21	5.84	1.39	1,608	1.58	0.98	963	1.43	1.48	73	0.17	2.35
1959-60	4.93	5.39	1.09	1,226	0.85	0.69	963	0.78	0.81	75	0.17	2.28
1960-61	5.44	7.43	1.37	1,472	1.38	0.94	1,145	1.54	1.35	75	0.16	2.12
1961-62	5.96	6.71	1.13	1,253	1.00	0.80	965	0.94	0.98	85	0.19	2.18
1962-63	6.66	8.34	1.25	1,332	1.25	0.94	820	0.90	1.09	85	0.19	2.23
1963-64	6.67	8.91	1.34	1,373	1.24	0.90	815	0.98	1.21	87	0.17	1.96
1964-65	7.25	10.02	1.38	1,415	1.27	0.90	835	1.12	1.34	86	0.17	2.03
1965-66	7.09	7.05	1.00	1,525	1.10	0.72	930	0.95	1.02	80	0.12	1.57
1966-67	8.43	12.67	1.50	1,723	1.94	1.13	1,011	1.40	1.38	82	0.19	2.33
1967-68	9.08	7.55	0.83	1,368	0.72	0.53	1,057	0.83	0.79	81	0.18	2.23
1968-69	10.85	14.80	1.37	1,567	1.71	1.09	1,341	1.65	1.23	67	0.15	2.24
1969-70	9.49	10.55	1.11	1,374	1.25	0.91	1,521	1.70	1.12	80	0.19	2.41
1970-71	6.48	7.89	1.22	1,553	1.61	1.04	2,000	2.35	1.18	86	0.21	2.47
1971-72	7.14	8.51	1.19	1,241	1.28	1.03	2,535	3.07	1.21	78	0.21	2.74
1972-73	7.60	6.43	0.85	995	0.74	0.74	2,140	1.73	0.81	59	0.14	2.34
1973-74	9.29	11.76	1.27	1,148	1.15	1.00	1,963	2.33	1.19	45	0.10	2.30

AGRICULTURE—continued

Season	Hay			Potatoes			Sugar-cane(a)			Vineyards		All crops
	Area	Pro- duction	Average yield	Area	Pro- duction	Average yield	Area	Pro- duction	Average yield	Area	Wine made	Area
	'000 hectares	'000 tonnes	tonnes	'000 hectares	'000 tonnes	tonnes	'000 hectares	'000 tonnes	tonnes	'000 hectares	mil. litres	mil. hectares
1901-02	683	2,057	3.01	44	328	7.4	35	1,390	39.5	26	24	3.4
1911-12	1,019	2,914	2.86	53	306	5.8	41	1,709	41.8	25	23	4.9
1921-22	1,212	3,965	3.27	60	394	6.5	52	2,476	47.7	37	39	6.2
1931-32	1,066	3,218	3.02	59	403	6.9	98	4,281	43.8	46	65	8.6
1941-42	1,116	3,632	3.25	40	338	8.4	103	5,236	50.8	53	71	(b)8.3
1945-46	1,116	3,549	3.18	71	656	9.2	95	4,794	50.3	52	113	(b)8.3
1946-47	812	2,395	2.95	59	553	9.4	92	4,092	44.5	53	146	(b)8.6
1947-48	797	3,056	3.83	59	506	8.6	90	4,489	49.9	54	149	(b)9.1
1948-49	639	2,329	3.64	48	467	9.6	108	6,815	63.2	55	149	(b)8.5
1949-50	650	2,469	3.80	54	479	8.8	114	6,959	61.1	55	149	(b)8.4
1950-51	557	2,096	3.76	51	418	8.1	110	7,165	65.1	55	118	(b)8.1
1951-52	627	2,382	3.80	48	517	10.8	114	5,412	47.5	55	160	(b)8.1
1952-53	713	2,809	3.94	55	438	8.0	113	7,079	62.5	55	136	(b)8.4
1953-54	783	3,098	3.96	52	557	10.7	138	9,159	66.5	56	144	(b)8.7
1954-55	803	2,902	3.61	43	476	10.9	151	10,248	67.7	55	109	9.0
1955-56	907	3,683	4.06	38	408	10.8	151	9,044	59.9	55	104	9.3
1956-57	753	3,092	4.10	41	527	12.9	150	9,421	62.9	53	140	8.1
1957-58	905	3,016	3.33	48	585	12.2	152	9,397	61.8	53	154	9.0
1958-59	1,221	5,171	4.23	42	584	13.8	150	10,377	69.4	53	148	10.4
1959-60	852	3,227	3.79	44	589	13.4	127	9,147	72.0	53	129	10.6
1960-61	1,203	5,160	4.29	37	458	12.3	138	9,313	67.5	53	154	12.0
1961-62	920	3,752	4.08	38	534	14.0	157	9,730	62.1	54	190	12.0
1962-63	1,101	4,793	4.35	46	677	14.7	163	12,940	79.6	54	136	13.0
1963-64	1,053	4,338	4.12	41	571	13.8	169	12,313	72.9	55	172	13.0
1964-65	1,130	5,043	4.46	36	516	14.5	190	15,312	80.4	56	177	14.0
1965-66	1,125	4,246	3.77	39	649	16.7	204	14,382	70.6	57	156	14.0
1966-67	1,415	6,473	4.58	40	653	16.3	226	16,953	75.1	56	190	16.0
1967-68	502	1,246	2.48	43	669	15.6	224	17,025	76.1	57	202	16.3
1968-69	428	1,728	4.04	46	811	17.7	230	18,708	81.3	58	239	16.6
1969-70	428	1,514	3.54	43	762	17.6	213	15,784	74.2	61	294	15.6
1970-71	349	1,274	3.65	39	747	19.3	221	17,645	80.0	64	255	13.4
1971-72	341	1,247	3.66	40	822	20.3	234	19,391	83.0	67	290	14.2
1972-73	453	1,224	2.70	37	693	18.9	242	18,928	78.3	69	280	14.3
1973-74	428	1,385	3.24	34	636	18.7	226	19,278	85.4	70	295	15.2

(a) Cane cut for crushing.

(b) Excludes Northern Territory.

PRIMARY INDUSTRIES—continued
PASTORAL, DAIRYING, ETC.

Year ended 30 June—	Livestock(a)				Wool (b)(c)	Meat(d)			Total meat	
	Horses	Cattle	Sheep	Pigs		Beef and veal	Mutton and lamb	Pigmeat		
	mil.	mil.	mil.	mil.	mil. kg	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes	'000 tonnes
1902	1.6	8.5	72	0.9	245	(e)46	(e)5.3	n.a.	n.a.	n.a.
1912	2.3	11.8	97	1.1	362	(e)96	(e)7.2	n.a.	n.a.	n.a.
1922	2.4	14.4	86	1.0	328	(e)121	(e)14.8	345	222	51
1932	1.8	12.3	111	1.2	457	177	14.3	355	312	72
1942	1.6	13.6	125	1.4	529	170	30.6	542	378	124
1946	1.3	13.9	96	1.4	425	153	41.9	413	295	110
1947	1.2	13.4	96	1.3	443	146	43.0	496	307	96
1948	1.2	13.8	103	1.3	456	165	42.1	571	300	91
1949	1.1	14.1	109	1.2	480	168	43.9	587	326	95
1950	1.1	14.6	113	1.1	518	176	45.5	616	364	92
1951	1.0	15.2	116	1.1	507	167	45.0	662	279	87
1952	0.9	14.9	118	1.0	490	137	41.3	591	287	86
1953	0.9	15.2	123	1.0	581	170	47.4	686	401	84
1954	0.8	15.6	127	1.2	565	162	49.8	716	371	85
1955	0.8	16.5	131	1.3	582	194	45.9	731	394	101
1956	0.8	16.5	139	1.2	643	212	39.3	763	386	95
1957	0.7	17.3	150	1.3	710	196	45.9	828	373	90
1958	0.7	16.9	149	1.4	650	179	36.6	804	428	103
1959	0.7	16.3	153	1.3	722	197	44.5	921	500	102
1960	0.6	16.5	155	1.4	762	201	45.7	764	583	102
1961	0.6	17.3	153	1.6	737	185	47.9	643	584	109
1962	0.6	18.0	158	1.7	770	202	56.6	804	596	122
1963	0.5	18.5	159	1.4	759	206	59.6	929	603	116
1964	0.5	19.1	165	1.5	810	207	59.2	1,001	595	113
1965	0.5	18.8	171	1.7	809	206	62.6	1,026	594	122
1966	n.a.	17.9	158	1.7	754	209	59.6	946	608	135
1967	0.5	18.3	164	1.8	799	222	69.8	879	596	142
1968	n.a.	19.2	167	2.1	803	196	70.5	904	665	150
1969	n.a.	20.6	175	2.3	885	198	74.8	935	680	162
1970	0.5	22.2	180	2.4	926	223	76.3	1,010	755	174
1971	n.a.	24.4	178	2.6	891	203	77.6	1,047	825	182
1972	n.a.	27.4	163	3.2	880	195	80.9	1,168	956	194
1973	n.a.	29.1	140	3.3	736	185	93.4	1,438	713	236
1974	n.a.	30.9	145	2.5	701	175	95.8	1,302	465	209

(a) At 31 December of previous year for years to 1942, at 31 March thereafter. (b) In terms of greasy. (c) 1901-02 and 1911-12, year ended previous December; then until 1946-47, year ended March; 1947-48 onwards, year ended June. (d) Carcass weight in terms of fresh meat. (e) Year ended previous December.

MINERALS

FORESTRY

Year ended 31 December—	Copper(a)	Gold(a)	Lead(a)	Zinc(a)	Iron ore	Black and brown coal	Crude oil	Year ended 30 June—	Sawn output of Aust. grown timber
1901	29.9	102,642	n.a.	(b)	n.a.	7.0	..	1902	(c)1,067
1911	46.1	77,263	225.3	241.9	(b)	10.7	..	1912	(c)1,428
1921	11.2	23,577	82.3	141.7	0.7	13.1	..	1922	1,392
1931	13.9	18,510	150.8	75.4	(b)	10.8	..	1932	559
1941	22.7	46,553	295.7	251.2	2.5	19.1	..	1942	2,157
1945	26.5	20,442	164.9	152.7	1.6	18.5	..	1946	2,112
1946	19.1	25,644	184.3	174.8	1.9	19.9	..	1947	2,478
1947	14.2	29,164	196.0	185.4	2.2	21.3	..	1948	2,636
1948	12.8	27,542	213.6	193.8	2.1	21.8	..	1949	2,794
1949	14.0	27,653	215.2	194.7	1.5	21.8	..	1950	2,886
1950	17.9	27,046	229.0	201.0	2.4	24.3	..	1951	2,976
1951	18.4	27,855	215.4	192.3	2.5	25.9	..	1952	3,287
1952	19.2	30,495	232.0	199.6	2.9	27.9	..	1953	3,162
1953	38.1	33,442	273.7	245.2	3.3	27.1	..	1954	3,304
1954	42.6	34,766	289.4	256.7	3.6	29.6	..	1955	3,419
1955	48.1	32,629	300.7	260.7	3.6	29.9	..	1956	3,424
1956	55.4	32,031	304.3	282.5	4.0	30.3	..	1957	3,348
1957	60.2	33,714	339.1	324.0	3.9	31.2	..	1958	3,282
1958	76.9	34,338	333.6	298.4	4.0	32.6	..	1959	3,445
1959	96.5	33,751	321.4	279.8	4.2	33.9	..	1960	3,589
1960	111.2	33,800	313.1	322.6	4.4	38.1	..	1961	3,346
1961	97.2	33,476	274.0	316.2	5.4	40.9	..	1962	3,190
1962	108.7	33,245	376.0	342.9	4.9	42.3	..	1963	3,341
1963	114.8	31,849	416.9	357.1	5.6	44.0	..	1964	3,509
1964	105.7	29,979	380.9	350.1	5.8	47.2	198	1965	3,615
1965	91.8	27,298	367.9	354.8	6.8	52.9	417	1966	3,558
1966	111.3	28,521	370.8	375.3	11.1	56.0	539	1967	3,448
1967	91.8	25,049	381.8	407.0	17.3	59.0	1,208	1968	3,476
1968	109.6	24,316	388.8	422.4	26.6	64.2	2,206	1969	(d)3,325
1969(e)	125.3	22,713	417.7	444.4	32.5	66.8	2,238	1970	(d)3,386
1970(e)	142.3	20,496	459.4	502.0	45.1	72.8	4,872	1971	3,438
1971(e)	173.0	19,108	416.4	444.1	57.1	72.9	14,937	1972	3,364
1972(e)	171.9	23,253	420.8	497.5	62.1	77.2	19,038	1973	3,582
1973(e)	198.7	20,002	385.0	507.0	74.6	83.9	20,669	1974p	3,459

(a) Metallic content of minerals produced. (b) Less than 0.05. (c) Year ended previous December. (d) Excludes estimated quantity of timber from logs peeled or sliced for veneers. (e) Year ended 30 June.

SECONDARY INDUSTRIES

FACTORIES(a)

Year ended 30 June—	Net value of production(d)										Value of	
	Number	Persons employed (b)	Salaries and wages paid(c)	Chemicals, etc.	Industrial metals, etc.	Textiles, etc.		Food, etc.	Paper, etc.	All groups	Plant and machinery(e)	Land and buildings(e)
						Clothing						
	'000 (g)	'000 (g)	\$m (g)	\$m n.a.	\$m n.a.	\$m n.a.	\$m n.a.	\$m n.a.	\$m n.a.	\$m 58.2	\$m n.a.	\$m n.a.
1902(f)												
1912(f)	14.5	312	55	2.2	24.1	15.0		23.6	8.5	108.3	63.2	65.0
1922	18.0	379	136	6.4	47.2	38.4		54.4	18.0	225.0	156.2	134.6
1932	21.7	337	112	15.8	45.6	13.8	22.2	57.4	19.2	222.0	243.1	213.2
1942	27.0	725	360	59.6	239.8	42.0	47.2	106.4	34.2	633.0	338.4	312.7
1948	37.4	849	572	57.3	362.6	64.2	86.7	156.3	59.2	978.6	427.4	422.3
1949	40.1	890	678	67.1	421.7	71.7	104.5	179.6	70.6	1,137.5	493.0	465.5
1950	41.6	917	772	81.3	492.5	85.9	115.4	202.0	86.0	1,323.1	571.2	519.1
1951	43.1	969	983	105.4	654.0	109.2	143.5	236.6	109.5	1,687.7	673.2	605.6
1952	45.8	978	1,224	127.4	826.2	113.2	162.2	282.2	136.4	2,049.7	820.3	719.0
1953	47.7	933	1,270	135.7	842.6	129.7	165.6	328.7	136.6	2,165.7	987.1	828.9
1954	49.6	990	1,410	164.6	936.6	157.1	187.1	355.8	158.6	2,454.1	1,161.4	966.9
1955	51.1	1,031	1,563	196.3	1,065.9	156.8	196.8	373.1	181.1	2,731.0	1,396.6	1,112.0
1956	52.4	1,060	1,707	238.3	1,193.9	163.6	204.9	395.6	198.1	3,001.4	1,595.7	1,307.1
1957	53.2	1,063	1,782	273.8	1,281.7	182.9	211.0	428.9	217.4	3,244.2	1,834.1	1,519.4
1958	54.0	1,074	1,859	291.3	1,389.0	183.0	216.1	449.9	241.4	3,457.4	2,025.5	1,698.1
1959	54.9	1,088	1,941	322.4	1,471.6	191.3	221.5	469.1	263.4	3,685.2	2,216.8	1,895.8
1960	56.7	1,132	2,173	360.3	1,700.4	216.7	237.7	520.1	298.2	4,161.1	2,443.2	2,129.2
1961	57.8	1,145	2,289	366.1	1,795.9	213.6	247.2	542.5	318.6	4,349.8	2,785.6	2,389.1
1962	58.5	1,121	2,287	364.3	1,770.3	211.2	252.4	495.5	326.9	4,394.6	3,052.1	2,809.6
1963	59.1	1,168	2,447	411.4	1,954.7	233.8	266.3	636.9	350.9	4,795.2	3,286.5	3,006.8
1964	59.4	1,210	2,652	449.5	2,174.0	252.5	281.4	700.5	379.7	5,270.0	3,480.7	3,204.7
1965	61.0	1,269	2,994	504.8	2,486.1	279.6	302.3	757.1	426.9	5,896.8	3,766.3	3,505.9
1966	61.7	1,294	3,163	542.7	2,647.8	282.8	319.0	818.3	459.5	6,251.9	4,154.7	3,776.6
1967	62.5	1,309	3,408	627.6	2,912.9	303.1	341.5	892.3	503.3	6,877.0	4,706.8	4,061.2
1968	63.0	1,331	3,666	687.0	3,163.6	315.0	360.1	937.5	549.0	7,430.9	4,962.2	4,303.2
1969(h)	35.9	1,264	3,908	633.0	3,201.6	301.0	409.2	1,184.4	620.7	7,475.5	n.a.	n.a.
1970	35.7	1,297	4,329	681.8	3,551.9	310.3	452.1	1,321.9	701.8	8,261.7	n.a.	n.a.
1972	36.1	1,303	5,257	804.1	4,052.0	333.7	521.5	1,683.9	818.1	9,703.2	n.a.	n.a.
1973	36.4	1,309	5,812	897.8	4,318.8	386.6	558.8	1,936.5	923.5	10,749.8	n.a.	n.a.

(a) Excludes Northern Territory and Australian Capital Territory before 1 July 1964. (b) Average over whole year; includes working proprietors. (c) Excludes amounts drawn by working proprietors. (d) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (e) Depreciated or book value at end of year, including estimated value of rented premises and machinery. (f) Year ended previous December. (g) Owing to variation in classification, effective comparison is not possible. (h) Direct comparison with figures for previous years are not possible (for details, see page 729).

PRIMARY AND SECONDARY INDUSTRIES

GROSS VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES(a)

Year ended 30 June—	Crop production	Pastoral				Bee-farming	Total Agriculture	Hunting	Forestry
		Dairying	Poultry						
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	
1902	47.6	54.4	15.2	4.0	0.2	121.4	n.a.	(b)5.6	
1912	77.6	105.4	32.2	8.0	0.2	223.4	n.a.	9.6	
1922	163.8	150.2	70.6	18.0	0.2	402.8	n.a.	18.2	
1932	149.0	123.1	66.1	17.1	0.2	355.5	3.2	15.4	
1942	201.0	198.7	91.1	24.8	0.9	516.4	10.8	23.3	
1946	306.7	199.2	126.5	47.2	0.9	680.5	18.2	28.4	
1947	286.4	294.3	126.1	47.0	1.9	755.6	20.0	31.5	
1948	566.1	432.9	151.7	53.4	1.6	1,205.7	15.7	40.0	
1949	445.6	535.8	170.4	62.0	3.4	1,217.2	17.1	46.0	
1950	563.5	744.3	202.2	67.0	1.7	1,578.6	12.8	50.7	
1951	557.0	1,510.5	221.0	74.9	1.9	2,365.3	14.4	62.2	
1952	664.3	899.6	260.6	97.0	1.7	1,923.3	14.8	82.7	
1953	765.9	1,115.0	337.7	109.7	2.4	2,330.8	12.6	86.6	
1954	743.9	1,115.3	347.1	109.9	3.2	2,319.4	11.5	94.7	
1955	679.3	1,058.7	363.9	103.0	3.2	2,208.0	11.2	99.1	
1956	769.9	1,036.2	395.7	107.6	3.9	2,313.2	13.4	110.0	
1957	704.3	1,356.1	376.8	110.0	5.1	2,552.3	13.4	115.2	
1958	681.7	1,089.8	370.7	110.9	3.8	2,256.9	13.7	114.1	
1959	919.9	1,076.1	400.7	109.6	3.8	2,509.9	14.3	116.4	
1960	820.7	1,275.2	425.4	119.7	5.1	2,646.1	15.4	108.1	
1961	1,071.4	1,130.6	409.5	130.2	3.8	2,745.4	14.8	108.4	
1962	1,008.3	1,187.3	412.5	121.7	4.0	2,733.9	13.3	100.1	
1963	1,136.6	1,287.1	439.4	123.6	3.5	2,990.2	12.8	101.6	
1964	1,228.4	1,562.7	463.5	138.2	6.0	3,398.9	15.0	108.0	
1965	1,320.0	1,454.5	505.3	137.4	5.1	3,422.3	14.6	116.3	
1966	1,181.3	1,467.8	508.0	154.6	4.3	3,316.0	15.6	120.3	
1967	1,639.3	1,486.1	523.8	171.6	4.0	3,824.7	13.5	117.7	
1968	1,268.8	1,395.2	504.1	169.3	4.6	3,342.1	12.1	118.8	
1969	1,717.3	1,536.8	513.7	176.2	3.0	3,947.0	12.1	119.5	
1970	1,494.4	1,541.6	547.2	184.4	4.8	3,772.5	12.5	125.0	
1971	1,512.0	1,328.9	567.0	195.3	4.7	3,607.9	10.2	137.2	
1972	1,607.8	1,564.5	607.3	200.7	6.5	3,986.7	10.2	147.9	
1973	1,598.1	2,542.4	631.1	203.9	8.4	4,983.9	12.1	160.7	

(a) Before 1922, year ended previous December. (b) Includes Fisheries.

PRIMARY AND SECONDARY INDUSTRIES—continued BUILDING
GROSS VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES(a)—continued

Year ended 30 June—	Fishing	Total primary excluding mining	Mining and quarrying	Factories	Grand total	New houses and flats completed(b)		Value of work done on all new buildings(c)
		\$m				number	value		$m
1902		\$m (d) 127.0	\$m 44.0	(e)58.2	229.2	'000 n.a.	\$m n.a.	\$m n.a.
1912	2.2	235.2	46.6	(e)108.3	390.1	n.a.	n.a.	n.a.
1922	2.8	423.8	40.0	225.0	683.8	n.a.	n.a.	n.a.
1932	3.3	377.4	27.0	220.0	504.8	n.a.	n.a.	n.a.
1942	4.2	554.7	66.8	633.0	1,115.0	n.a.	n.a.	n.a.
1946	6.1	733.2	52.5	704.6	1,326.4	15.4	29.0	n.a.
1947	7.6	814.7	65.0	821.7	1,539.2	32.9	72.1	n.a.
1948	8.0	1,269.4	85.2	978.6	2,116.3	44.3	108.6	n.a.
1949	9.6	1,289.9	96.7	1,137.5	2,287.7	52.7	150.9	n.a.
1950	9.8	1,651.9	104.7	1,323.1	2,813.8	57.0	184.7	n.a.
1951	11.3	2,453.2	142.3	1,687.7	3,965.4	69.3	255.6	n.a.
1952	13.3	2,034.1	194.4	2,049.7	3,911.4	80.1	354.1	n.a.
1953	15.8	2,445.8	219.3	2,165.7	4,374.5	80.2	394.5	n.a.
1954	17.7	2,443.3	209.8	2,454.1	4,644.2	77.6	398.2	n.a.
1955	19.5	2,337.8	236.2	2,731.0	4,832.5	82.1	444.2	n.a.
1956	19.6	2,456.2	265.0	3,001.4	5,226.1	78.5	452.5	n.a.
1957	23.1	2,704.0	280.0	3,244.2	5,713.5	68.4	419.5	n.a.
1958	22.8	2,407.5	253.6	3,457.4	5,547.4	74.6	463.0	811.6
1959	24.5	2,665.1	236.7	3,685.2	5,957.7	84.2	527.3	864.9
1960	27.2	2,796.8	252.3	4,161.1	6,580.2	90.0	571.0	1,001.6
1961	28.5	2,897.1	278.1	4,349.8	6,815.0	94.5	627.4	1,130.8
1962	31.7	2,879.0	274.5	4,394.6	6,823.5	86.3	593.2	1,076.9
1963	34.1	3,138.7	291.0	4,795.2	7,472.6	87.7	610.2	1,140.7
1964	35.4	3,557.3	327.7	5,270.0	8,372.1	96.7	685.8	1,323.9
1965	42.4	3,595.6	400.1	5,896.8	9,041.4	112.7	823.0	1,555.9
1966	45.8	3,497.7	443.9	6,251.9	9,295.7	112.8	869.9	1,681.2
1967	48.8	4,004.7	515.5	6,877.0	10,390.8	111.9	914.8	1,745.4
1968	58.5	3,531.5	568.1	7,430.9	10,553.5	120.2	1,022.8	1,914.3
1969	63.0	4,141.6	(f)749.2	(f)7,473.5		130.7	1,182.1	2,195.4
1970	63.3	3,973.3	(f)1,042.6	(f)8,263.7		142.2	1,379.4	2,556.7
1971	78.1	3,833.4	(f)1,289.5	n.a.(g)		141.4	1,466.0	2,815.6
1972	92.7	4,237.5	(f)1,428.5	(f)9,703.2		142.8	1,609.2	3,132.4
1973			(f)1,595.0	(f)10,749.8		149.1	1,822.2	3,542.4
1974						153.5	2,198.5	4,214.9

(a) Gross value, 1901 to 1921–22. Before 1922, year ended previous December. (b) Series commenced 1945–46. Partly estimated before July 1951, and excludes Northern Territory before July 1954. (c) Building by private contractors, government authorities and owner builders. (d) Included in Forestry. (e) Year ended previous December. (f) Value added from 1968–69. (g) Manufacturing census was not conducted.

WAGES AND PRICES

Year ended 31 December—	Weekly wage rates index adult males(a)	Retail price index numbers six State capital cities	Year ended 31 December—	Weekly wage rates index adult males(a)	Retail price index numbers, six States capital cities
		combined(b)			combined(b)
1901	n.a.	88	1956	110.8	419
1911	n.a.	100	1957	112.4	429
1921	n.a.	(c)168	1958	114.3	435
1931	n.a.	145	1959	122.0	443
1941	38.5	167	1960	125.7	459
1943	42.5	188	1961	129.5	471
1944	42.6	187	1962	129.8	469
1945	42.7	187	1963	133.0	472
1946	45.7	190	1964	140.4	483
1947	49.8	198	1965	144.3	502
1948	55.4	218	1966	152.4	517
1949	59.7	240	1967	159.3	534
1950	71.5	262	1968	173.4	548
1951	85.8	313	1969	183.6	564
1952	96.7	367	1970	191.9	586
1953	99.2	383	1971	218.0	621
1954	101.6	386	1972	239.8	658
1955	105.2	394	1973	274.7p	720

(a) At 31 December, Base; year 1954 = 100, weighted average. Excludes rural industry. (b) Base; year 1911 = 100. The index numbers are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are; from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946–47, the 'C' Series Retail Price Index; from 1946–47 to 1948–49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948–49 onwards, the Consumer Price Index. (c) November.

OVERSEAS TRADE

Year ended 30 June—	TOTALS		PRINCIPAL EXPORTS(a)					
	Imports	Exports	Wool		Wheat		Flour(b)	
			Quantity	Value	Quantity	Value	Quantity	Value
	\$m f.o.b.	\$m f.o.b.	mil. kg (c)	\$m f.o.b.	'000 tonnes	\$m f.o.b.	'000 tonnes	\$m f.o.b.
1902(d)	76	100	175.8	30	552	5.6	88	1.2
1912(d)	122	158	330.3	52	887	12.8	160	2.8
1922	188	256	440.6	96	2,720	57.2	327	11.0
1932	104	216	427.1	74	3,468	38.4	554	7.6
1942	348	338	426.3	112	608	9.2	476	8.4
1946	358	447	422.3	132	339	12.4	471	22.7
1947	419	618	659.8	244	331	12.7	694	45.1
1948	679	820	513.9	289	1,638	105.6	711	63.6
1949	830	1,085	601.0	454	2,260	129.4	776	67.4
1950	1,076	1,227	647.5	618	2,135	124.3	700	52.7
1951	1,488	1,964	541.5	1,253	2,346	148.3	801	65.8
1952	2,107	1,350	472.3	636	1,712	110.6	716	66.0
1953	1,028	1,743	547.8	788	1,620	103.9	789	74.8
1954	1,363	1,657	547.0	805	982	61.9	690	59.4
1955	1,687	1,548	536.5	693	1,718	90.4	595	40.6
1956	1,642	1,564	587.8	653	1,934	92.9	605	39.4
1957	1,438	1,986	658.1	930	2,479	120.1	680	43.3
1958	1,584	1,636	603.2	720	1,077	57.0	417	28.7
1959	1,593	1,623	657.1	578	1,486	76.8	406	26.7
1960	1,854	1,875	722.4	742	2,483	123.4	486	30.3
1961	2,175	1,938	706.6	649	4,164	204.9	597	38.0
1962	1,769	2,155	738.8	720	5,529	284.9	525	34.8
1963	2,163	2,152	723.2	733	4,136	216.9	475	31.4
1964	2,373	2,782	757.3	926	6,905	362.0	621	42.2
1965	2,905	2,651	728.2	781	5,714	297.2	519	37.3
1966	2,939	2,721	726.4	757	5,156	264.1	354	24.8
1967	3,045	3,024	740.3	840	6,506	361.2	324	23.1
1968	3,264	3,045	763.4	739	6,498	342.7	346	23.5
1969	3,469	3,374	796.8	827	4,891	258.3	317	21.8
1970	3,881	4,137	852.8	803	6,886	337.6	298	21.2
1971	4,150	4,376	779.7	575	9,075	433.0	278	19.6
1972	4,008	4,893	846.8	582	8,459	418.5	164	12.6
1973	4,121	6,214	807.3	1,238	5,391	273.1	157	12.1
1974	6,085	6,894		1,248	5,128	517.1	129	20.2

(a) Australian produce. (b) Flour, plain white. (c) Greasy equivalent (includes greasy wool, stipe, wool scoured and carbonised, wool exported on skins). (d) Year ended previous December.

PRINCIPAL EXPORTS(a)—continued

Year ended 30 June—	Butter(b)		Hides and skins		Meats(c)	Fruit(d)	Sugar	Gold	Ores and concentrates	
	Quantity	Value	Value	Value					Value	Value
	mil. kg	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.
1902(e)	16	2.8	2.6	5.2	0.4	(f)	28.6	..	(f)	
1912(e)	46	9.2	6.4	8.6	1.0	(f)	24.0	..	8.1	
1922	58	16.0	6.2	11.0	6.0	(f)	7.0	..	1.3	
1932	92	20.6	4.6	12.8	9.6	5.0	23.8	..	0.3	
1942	59	16.2	12.0	28.2	10.6	5.2	18.4	..	1.9	
1946	63	24.8	23.7	28.0	12.2	6.1	52.8	..	3.2	
1947	61	25.4	30.9	42.3	19.7	5.4	(f)	..	5.6	
1948	85	41.8	24.7	45.1	25.5	6.1	7.7	..	9.2	
1949	84	48.3	24.4	59.5	30.3	26.4	(f)	..	11.8	
1950	83	50.8	30.3	70.0	30.2	28.3	(f)	..	12.3	
1951	56	37.8	54.4	60.8	37.6	29.6	(f)	..	21.4	
1952	13	10.2	34.3	71.0	44.4	13.8	14.0	..	39.9	
1953	51	40.9	40.3	131.6	61.2	43.3	40.8	..	38.9	
1954	41	33.1	38.9	113.8	67.9	63.2	27.5	..	25.6	
1955	64	50.0	39.4	127.0	68.0	62.3	27.4	..	28.1	
1956	84	58.7	41.8	119.1	67.4	49.4	16.6	..	38.2	
1957	79	52.9	48.5	100.1	52.9	57.6	28.5	..	51.4	
1958	53	32.3	50.8	110.5	72.0	70.0	12.7	..	42.4	
1959	80	50.9	47.1	194.4	73.1	64.3	6.6	..	32.7	
1960	79	58.4	63.6	177.0	64.3	53.3	20.4	..	43.5	
1961	64	40.9	54.4	144.6	61.1	70.1	79.9	..	54.4	
1962	81	48.5	64.3	179.4	73.5	67.8	18.0	..	47.7	
1963	81	49.3	73.7	225.7	73.3	91.0	12.9	..	43.5	
1964	92	57.0	91.7	243.7	92.3	156.5	14.3	..	54.4	
1965	97	67.4	80.1	286.2	86.1	112.7	18.4	0.8	76.6	
1966	84	57.7	89.2	227.7	107.3	93.9	24.4	2.7	87.5	
1967	104	64.8	86.3	285.5	94.5	100.0	18.1	46.0	100.3	
1968	78	47.0	62.3	284.6	104.9	97.6	15.4	103.0	122.7	
1969	75	40.5	75.4	291.1	92.4	122.2	22.7	179.5	142.9	
1970	99	52.5	87.5	426.1	87.7	116.1	29.4	277.8	204.9	
1971	89	48.0	71.3	438.3	99.8	149.6	18.1	374.3	230.8	
1972	57	48.9	80.5	569.3	89.4	210.6	19.1	375.5	225.5	
1973	75	62.0	188.7	866.5	116.7	249.8	24.8	439.1	237.6	
1974	56	41.9	148.2	801.5	104.6	223.2	34.6	498.7	307.4	

(a) Australian produce. (b) Includes concentrates and ghee. (c) Includes sausage casings, natural. (d) Includes juices and fruit preparations. (e) Year ended previous December. (f) Less than \$0.05m.

OVERSEAS TRADE—continued

PRINCIPAL IMPORTS

Year ended 30 June—	Vegetable foodstuffs, etc.	Apparel, etc.	Oil, etc.	Metals, etc.	Rubber	Paper, etc.
	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.
1902(a)	7.2	21.8	2.4	15.6	1.0	3.2
1912(a)	7.4	32.4	3.2	28.0	2.8	5.2
1922	8.0	62.0	9.4	45.6	3.4	8.8
1932	5.2	30.8	11.0	14.8	1.6	8.8
1942	12.3	65.3	32.4	143.6	6.0	8.7
1945	13.0	90.7	41.3	150.4	3.5	14.8
1946	17.6	63.4	41.5	92.5	5.9	16.3
1947	18.9	97.8	41.3	105.2	10.9	26.8
1948	33.0	192.1	69.5	170.8	9.8	46.8
1949	27.9	218.4	86.4	256.1	12.6	42.1
1950	41.4	199.5	104.8	454.7	21.4	37.8
1951	49.6	277.3	139.7	479.7	59.3	58.0
1952	50.1	407.1	174.9	786.8	68.0	137.5
1953	37.0	96.5	148.5	452.0	17.4	44.9
1954	51.4	227.6	167.0	504.4	23.7	68.2
1955	71.9	253.5	193.8	638.3	34.1	92.8
1956	44.1	222.7	199.3	644.1	44.1	87.2
1957	51.6	182.7	191.1	530.1	33.4	83.5
1958	51.5	217.0	203.4	564.4	33.3	89.8
1959	55.3	193.9	209.0	585.6	33.6	96.1
1960	54.9	222.1	213.5	710.1	48.5	103.8
1961	60.5	264.9	223.3	871.3	47.3	133.8
1962	56.3	208.4	219.8	630.3	35.5	109.6
1963	55.5	233.3	246.3	850.0	46.7	133.5
1964	61.6	234.0	251.5	947.1	51.2	141.7
1965	66.2	272.1	260.1	1,275.2	66.3	156.5

Year ended 30 June—	Food and live animals	Beverages and tobacco	Crude materials, inedible, except fuels	Mineral fuels, lubricants and related materials	Animal and vegetable oils and fats	Chemicals	Manu- factured goods classified chiefly by materials	Machinery and transport equipment	Miscel- laneous manu- factured articles	Com- modities and trans- actions of merchan- dise trade not elsewhere classified
	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.	\$m f.o.b.
1966	110	37	197	252	15	266	590	1,121	220	90
1967	118	38	206	247	15	297	586	1,144	243	110
1968	117	36	224	241	14	309	644	1,250	270	111
1969	128	44	228	252	13	328	688	1,328	298	116
1970	140	48	247	255	16	363	753	1,528	350	124
1971	138	50	235	190	18	410	867	1,644	403	125
1972	160	51	219	194	15	410	856	1,483	432	137
1973	163	52	268	175	13	424	893	1,489	475	119
1974p	237	65	413	377	28	580	1,405	2,092	721	108

(a) Year ended previous December.

TRANSPORT AND COMMUNICATION
SHIPPING

Year ended 30 June—	Overseas vessels				Interstate vessels—				
	Entrances		Clearances		Overseas cargo		entrances		Interstate cargo shipped
	No.	Net tonnage	No.	Net tonnage	Dis-charged	Shipped	No.	Net tonnage	
	mil. tons	mil. tons	mil. tons	mil. tons	mil. tons	mil. tons	mil. tons	mil. tons	
1902 . . .	(b)	(b)	(b)	(b)	n.a.	(a)	n.a.	n.a.	(a)
1912 . . .	(c)2,081	(c)5.0	(c)2,093	(c)5.0	n.a.	n.a.	(c)5,000	(c)6.8	n.a.
1922 . . .	1,567	4.6	1,544	4.5	2.4	5.8	4,897	6.4	5.5
1932 . . .	1,519	5.7	1,538	5.7	3.0	6.7	3,958	5.5	4.4
1942 . . .	1,276	5.2	1,268	5.6	5.5	4.2	4,860	6.6	10.0
1947 . . .	1,202	5.2	1,287	5.2	5.6	4.5	3,084	4.7	8.5
1948 . . .	1,470	6.1	1,479	5.8	6.9	5.8	2,943	4.2	8.4
1949 . . .	1,706	7.5	1,780	7.5	8.4	6.8	3,091	4.7	7.4
1950 . . .	1,942	8.7	1,965	8.7	11.3	6.4	3,228	5.3	7.6
1951 . . .	1,911	8.6	1,992	8.7	13.1	6.7	3,301	5.8	8.0
1952 . . .	2,038	9.0	2,098	9.3	14.4	5.7	3,750	7.9	9.0
1953 . . .	1,988	8.7	2,053	8.9	9.7	7.5	4,555	9.2	9.7
1954 . . .	2,054	8.9	2,073	8.9	11.3	7.1	4,759	9.6	10.6
1955 . . .	2,245	9.9	2,260	10.1	14.4	7.5	4,644	9.4	11.7
1956 . . .	2,425	11.2	2,457	11.1	15.9	8.2	4,626	9.5	12.9
1957 . . .	2,628	11.8	2,662	11.8	15.3	10.1	4,805	9.5	13.2
1958 . . .	2,656	12.4	2,598	12.1	16.6	8.9	5,127	9.8	13.8
1959 . . .	2,706	12.9	2,757	13.1	16.9	10.1	5,012	9.5	13.4
1960 . . .	2,976	14.5	2,969	14.4	18.7	11.6	5,004	9.5	14.3
1961 . . .	3,382	17.3	3,396	17.0	21.1	15.3	4,860	9.6	15.2
1962 . . .	3,599	18.9	3,611	18.8	20.3	18.7	5,032	9.8	14.8
1963 . . .	3,411	19.0	3,351	18.6	22.8	17.0	4,845	9.7	15.4
1964 . . .	3,714	20.7	3,763	20.9	24.7	21.6	5,067	10.1	16.8
1965 . . .	3,813	21.7	3,788	21.7	27.7	22.4	5,263	13.2	17.8
1966 . . .	3,929	23.0	4,029	23.3	28.3	23.8	5,480	15.1	17.7
1967 . . .	3,977	27.4	4,017	27.6	31.3	34.6	4,937	15.3	17.4
1968 . . .	3,972	30.1	4,013	30.3	32.3	43.4	5,159	15.7	19.0
1969 . . .	4,390	36.4	4,360	36.2	34.5	57.0	5,269	15.8	20.4
1970 . . .	4,971	44.5	5,053	44.6	33.4	79.0	4,834	17.7	22.5
1971 . . .	5,476	50.8	5,578	51.4	26.5	102.8	4,967	23.7	26.7
1972 . . .	5,439	53.1	5,447	53.5	24.4	109.1	5,491	27.0	28.4
1973 . . .	5,647	62.6	5,631	62.0	25.2	133.4	5,215	28.8	30.1
1974 . . .	5,975	72.0	5,909	71.5	(d)30.7	(d)153.5	5,073	28.4	(d)32.5

(a) Tons weight plus tons measurement. (b) Separate details not available. Total entrances and clearances for year ended December 1901, 4,028 vessels, 6.5 million tons. (c) Year ended previous December. (d) Tonnes plus cubic metres.

GOVERNMENT RAILWAYS(a)

REGULAR INTERNAL AIR SERVICES

Year ended 30 June—	Freight					Passengers				Freight				Mail				
	Route kilo-metres (b)		Train kilo-metres		Freight-tonnes carried	Freight-net tonne-kilo-metres	Kilo-metres flown		Embarkations	Pas-senger kilo-metres	Tonnes up-lifted		Tonne-kilo-metres		Tonnes up-lifted		Tonne-kilo-metres	
	'000	mil.	mil.	mil.			mil.	'000			mil.	'000	mil.	'000	mil.	'000	mil.	'000	mil.
1902 . . .	20.6	61.5	115	15.7	n.a.	..	..	..	..	..	..	..	..	..	..	..	..	..
1912 . . .	27.0	88.8	228	25.9	n.a.	..	..	..	..	..	..	..	..	..	..	..	..	..
1922 . . .	37.7	90.3	335	32.0	n.a.	..	..	..	..	..	..	..	..	..	..	..	..	..
1932 . . .	43.5	102.7	303	26.5	n.a.	1.4	6	5	0.04	n.a.	0.02	n.a.	..	..	..	..	..	..
1942 . . .	43.8	142.4	475	39.5	n.a.	12.6	151	122	1.2	1.5	n.a.	0.7	..	..	..	..	..	..
1946 . . .	43.8	139.5	546	37.3	n.a.	28.5	509	362	5.1	3.8	2.2	2.5	..	..	..	..	..	..
1947 . . .	43.8	137.6	503	38.4	9,165	51.5	850	589	12.4	9.8	1.2	1.0	..	..	..	..	..	..
1948 . . .	43.6	141.1	511	40.6	9,703	52.1	1,208	810	26.2	19.6	1.3	1.2	..	..	..	..	..	..
1949 . . .	43.5	148.5	507	42.1	10,158	56.6	1,409	911	33.9	25.0	1.6	1.3	..	..	..	..	..	..
1950 . . .	43.5	150.3	505	41.3	10,143	58.7	1,500	950	44.8	32.6	2.6	2.0	..	..	..	..	..	..
1951 . . .	43.5	142.7	476	41.6	10,264	65.5	1,685	1,077	53.9	39.6	2.9	2.2	..	..	..	..	..	..
1952 . . .	43.1	150.3	501	45.0	11,046	67.3	1,829	1,162	52.2	39.0	2.4	1.9	..	..	..	..	..	..
1953 . . .	43.1	142.7	498	44.7	10,750	62.9	1,706	1,073	52.3	39.7	2.1	1.8	..	..	..	..	..	..
1954 . . .	42.8	150.5	511	47.6	11,370	66.0	1,772	1,130	63.0	47.7	2.1	1.8	..	..	..	..	..	..
1955 . . .	42.8	152.6	517	48.5	11,929	70.0	1,918	1,233	71.4	54.0	2.1	1.9	..	..	..	..	..	..
1956 . . .	42.6	154.8	515	47.6	11,894	70.3	2,020	1,333	76.6	56.8	2.3	2.0	..	..	..	..	..	..
1957 . . .	42.6	153.0	499	48.3	12,203	67.8	2,125	1,434	68.1	53.0	2.3	2.0	..	..	..	..	..	..
1958 . . .	42.5	145.3	494	46.0	11,132	65.2	2,123	1,447	63.5	48.2	2.4	2.0	..	..	..	..	..	..
1959 . . .	42.3	146.9	485	48.8	11,970	64.9	2,235	1,519	57.0	42.0	2.4	2.2	..	..	..	..	..	..
1960 . . .	42.2	140.2	479	52.0	13,091	69.5	2,660	1,823	59.3	42.6	4.4	3.8	..	..	..	..	..	..
1961 . . .	42.0	149.7	463	56.3	14,370	68.1	2,639	1,786	57.2	41.2	5.4	4.5	..	..	..	..	..	..
1962 . . .	41.2	149.0	461	56.5	14,427	66.3	2,666	1,802	51.9	38.1	5.7	4.7	..	..	..	..	..	..
1963 . . .	41.0	149.6	465	56.8	15,131	70.3	2,833	1,965	53.9	41.3	5.9	4.9	..	..	..	..	..	..
1964 . . .	40.5	155.3	471	62.7	17,170	78.8	3,257	2,266	57.3	44.5	6.4	5.5	..	..	..	..	..	..
1965 . . .	40.3	155.5	464	65.9	18,224	84.2	3,764	2,638	63.5	49.5	7.0	5.9	..	..	..	..	..	..
1966 . . .	40.2	151.7	460	65.5	18,050	88.5	4,158	2,947	69.0	54.9	7.8	6.7	..	..	..	..	..	..
1967 . . .	40.3	150.8	455	69.6	18,832	91.3	4,425	3,174	74.4	58.6	8.7	7.5	..	..	..	..	..	..
1968 . . .	40.5	152.1	453	72.2	20,054	91.3	4,668	3,420	77.2	61.8	8.5	7.6	..	..	..	..	..	..
1969 . . .	40.4	151.0	447	77.0	21,463	97.1	5,185	3,865	81.6	66.5	9.0	8.0	..	..	..	..	..	..
1970 . . .	40.3	156.3	450	83.7	23,973	106.6	5,911	4,511	90.8	74.5	9.6	8.7	..	..	..	..	..	..
1971 . . .	40.3	156.3	453	87.3	25,206	114.6	6,340	4,974	91.4	78.0	9.9	9.3	..	..	..	..	..	..
1972 . . .	40.3	153.7	404	88.7	25,403	115.9	6,629	5,277	89.9	76.5	10.1	9.6	..	..	..	..	..	..
1973 . . .	40.5	152.0	400	92.5	26,582	121.6	7,503	5,542	94.4	84.0	10.1	10.1	..	..	..	..	..	..

(a) Particulars of train-kilometres, passenger-journeys, freight tonnes carried, and freight net tonne-kilometres refer only to operations for which revenue is received. (b) At end of period.

TRANSPORT AND COMMUNICATION—continued
ROAD TRANSPORT COMMUNICATION

Year ended 30 June—	Tramway trolley-bus and omnibus services(a) Passenger journeys	Motor vehicles on the register(b)				Postal matter dealt with(d)	Telephones		Broadcasting and television licences in force(b)		
		Motor cars and station wagons	Commercial vehicles (c)	Motor cycles	Total motor vehicles (including motor cycles)		Instruments in service (b)	Services in operation (b)(e)	Telegrams (f)	Broadcast listeners'	Television viewers'
	mil.	'000	'000	'000	'000	mil. articles	'000 (g)36	'000 (g)28	mil. (g)8.2	'000	'000
1902 . . .	n.a.	..	..	..	..	(g)384	(g)36	(g)28	(g)8.2	..	..
1912 . . .	360	n.a.	n.a.	n.a.	n.a.	(g)698	(g)118	(g)96	(g)13.9	..	..
1922 . . .	569	102			102	778	259	196	16.8	(h)1	..
1932 . . .	589	420	96	72	588	887	485	364	13.9	369	..
1942 . . .	(i)1,067	451	250	49	751	1,124	739	531	26.1	1,320	..
1945 . . .	1,290	506	291	57	854	1,155	828	578	37.6	1,415	..
1946 . . .	1,275	523	333	73	929	1,166	856	608	38.0	1,437	..
1947 . . .	1,216	548	378	87	1,013	1,235	905	648	35.7	1,678	..
1948 . . .	1,199	589	419	100	1,108	1,307	963	688	36.8	1,704	..
1949 . . .	1,185	651	457	118	1,225	1,375	1,028	734	37.9	1,763	..
1950 . . .	1,076	764	506	134	1,404	1,466	1,110	795	38.0	1,841	..
1951 . . .	1,092	879	555	146	1,580	1,526	1,209	870	37.2	1,885	..
1952 . . .	1,019	1,028	588	155	1,770	1,482	1,301	939	29.8	1,961	..
1953 . . .	988	1,105	587	148	1,840	1,506	1,383	1,001	25.9	1,986	..
1954 . . .	981	1,196	611	141	1,947	1,604	1,476	1,070	25.1	2,042	..
1955 . . .	966	1,342	654	133	2,130	1,653	1,587	1,153	25.5	2,035	..
1956 . . .	927	1,430	693	123	2,246	1,741	1,704	1,240	25.4	2,089	..
1957 . . .	833	1,537	710	118	2,366	1,784	1,814	1,318	24.0	2,107	74
1958 . . .	803	1,661	731	114	2,506	1,895	1,937	1,407	22.9	2,138	291
1959 . . .	778	1,784	755	110	2,649	1,951	2,056	1,491	22.5	2,264	578
1960 . . .	758	1,938	784	102	2,824	1,953	2,164	1,562	22.2	2,283	955
1961 . . .	726	2,070	800	93	2,963	2,048	2,266	1,631	21.8	2,256	1,217
1962 . . .	718	2,201	815	85	3,101	2,101	2,382	1,719	21.6	2,220	1,424
1963 . . .	712	2,377	832	77	3,286	2,202	2,523	1,812	21.8	2,240	1,655
1964 . . .	702	2,583	846	69	3,498	2,342	2,670	1,919	23.4	2,302	1,882
1965 . . .	685	2,792	858	65	3,715	2,443	2,811	2,010	24.3	2,358	2,045
1966 . . .	653	2,947	868	64	3,878	2,556	2,978	2,120	25.0	2,526	2,226
1967 . . .	621	3,104	880	69	4,053	2,683	3,178	2,235	25.6	2,538	2,405
1968 . . .	609	3,305	892	83	4,279	2,648	3,392	2,359	(j)23.4	2,580	2,519
1969 . . .	590	3,499	911	98	4,508	2,648	3,599	2,511	(j)23.3	2,630	2,649
1970 . . .	575	3,720	938	114	4,772	2,783	3,913	2,704	(j)23.2	2,670	2,758
1971 . . .	561	3,935	961	144	5,039	2,806	4,152	2,857	(j)21.2	2,699	2,845
1972 . . .	503	4,147	998	180	5,325	2,767	4,400	2,978	(j)20.2	2,758	2,939
1973 . . .	516	4,376	1,048	210	5,634	2,828	4,659	3,147	(j)20.4	2,814	3,013

(a) Government and municipal. Trolley-bus services ceased in August 1969. (b) At end of period. (c) Open and closed light commercial type vehicles, rigid and articulated trucks, other truck type vehicles and buses. (d) Letters, postcards, letter-cards, newspapers, packets, parcels, and registered articles. (e) All single lines plus one half the number of duplex lines. Until the introduction of duplex services in December 1948, statistics of exchange lines and telephone services were identical. (f) Telegrams despatched to places within Australia and despatched to or received from overseas. (g) Year ended previous December. (h) Year 1923-24. First year licences issued. (i) Tramway passenger journeys only before 1942. (j) Excludes telegrams received from overseas. These particulars are no longer available.

NATIONAL ACCOUNTS

GROSS DOMESTIC PRODUCT

GROSS FIXED CAPITAL EXPENDITURE

Year—	GROSS DOMESTIC PRODUCT						GROSS FIXED CAPITAL EXPENDITURE					
	At current prices			At constant prices(a)			At current prices			At constant prices(a)		
	(b)	(c)	(d)	1953-54 prices(d)	1959-60 prices(d)	1966-67 prices(d)	(e)	(d)	1953-54 prices(d)	1959-60 prices(d)	1966-67 prices(d)	
1900-01	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	
1901-02	449	..	..	..	..	..	56	..	..	..	..
1903-04	444	..	..	..	..	..	74	..	..	..	..
1904-05	449	..	..	..	..	..	51	..	..	..	..
1905-06	445	..	..	..	..	..	50	..	..	..	..
1906-07	478	..	..	..	..	..	53	..	..	..	..
1907-08	538	..	..	..	..	..	72	..	..	..	..
1907-08	536	..	..	..	..	..	75	..	..	..	..
1908-09	583	..	..	..	..	..	76	..	..	..	..
1909-10	624	..	..	..	..	..	80	..	..	..	..
1910-11	683	..	..	..	..	..	98	..	..	..	..
1911-12	733	..	..	..	..	..	125	..	..	..	..
1912-13	802	..	..	..	..	..	146	..	..	..	..
1913-14	865	..	..	..	..	..	154	..	..	..	..
1914-15	833	..	..	..	..	..	132	..	..	..	..
1915-16	909	..	..	..	..	..	125	..	..	..	..
1916-17	943	..	..	..	..	..	123	..	..	..	..
1917-18	963	..	..	..	..	..	112	..	..	..	..
1918-19	1,089	..	..	..	..	..	146	..	..	..	..
1919-20	1,257	..	..	..	..	..	209	..	..	..	..
1920-21	1,426	..	..	..	..	..	245	..	..	..	..
1921-22	1,378	..	..	..	..	..	261	..	..	..	..
1922-23	1,510	..	..	..	..	..	273	..	..	..	..
1923-24	1,569	..	..	..	..	..	290	..	..	..	..
1924-25	1,722	..	..	..	..	..	303	..	..	..	..
1925-26	1,659	..	..	..	..	..	308	..	..	..	..
1926-27	1,729	..	..	..	..	..	328	..	..	..	..
1927-28	1,739	..	..	..	..	..	329	..	..	..	..
1928-29	1,711	..	..	..	..	..	309	..	..	..	..
1929-30	1,566	..	..	..	..	..	240	..	..	..	..
1930-31	1,288	..	..	..	..	..	166	..	..	..	..
1931-32	1,209	..	..	..	..	..	119	..	..	..	..
1932-33	1,264	..	..	..	..	..	134	..	..	..	..
1933-34	1,356	..	..	..	..	..	156	..	..	..	..
1934-35	1,422	..	..	..	..	..	203	..	..	..	..
1935-36	1,574	..	..	..	..	..	226	..	..	..	..
1936-37	1,717	..	..	..	..	..	253	..	..	..	..
1937-38	1,857	..	..	..	..	..	306	..	..	..	..
1938-39	1,847	1,860	(1,800)	..	..	..	298	(316)	..	..	..
1939-40	..	2,040	..	..	..	..	..	..	..	..	..
1940-41	..	2,174	..	..	..	..	..	..	..	..	..
1941-42	..	2,548	..	..	..	..	..	..	..	..	..
1942-43	..	2,936	..	..	..	..	..	..	..	..	..
1943-44	..	2,986	..	..	..	..	..	..	..	..	..
1944-45	..	2,906	..	..	..	..	..	..	..	..	..
1945-46	..	3,006	..	..	..	..	..	..	..	..	..
1946-47	..	3,234	..	..	..	..	..	..	..	..	..
1947-48	..	3,988	..	..	..	..	..	..	..	..	..
1948-49	..	4,524	4,319	7,269	..	..	..	792	1,350	..	..
1949-50	..	..	5,093	7,835	..	..	..	1,064	1,652	..	..
1950-51	..	..	6,767	8,297	..	..	..	1,524	2,049	..	..
1951-52	..	..	7,260	8,532	..	..	..	1,938	2,194	..	..
1952-53	..	..	8,233	8,456	..	..	..	1,937	1,983	..	..
1953-54	..	..	9,000	9,000	10,449	..	..	2,128	2,128	2,511	..
1954-55	..	..	9,588	9,478	11,065	..	..	2,353	2,294	2,698	..
1955-56	..	..	10,388	10,005	11,622	..	..	2,567	2,380	2,811	..
1956-57	..	..	11,313	10,265	11,844	..	..	2,667	2,380	2,819	..
1957-58	..	..	11,569	10,417	12,104	..	..	2,856	2,499	2,951	..
1958-59	..	..	12,425	11,350	12,996	..	..	3,022	2,614	3,085	..
1959-60	..	..	13,686	11,963	13,686	16,321	..	3,405	2,886	3,405	3,950
1960-61	..	..	14,553	..	14,118	16,874	..	3,671	..	3,569	4,163
1961-62	..	..	14,881	..	14,248	17,058	..	3,730	..	3,579	4,184
1962-63	..	..	16,071	..	15,175	18,194	..	4,023	..	3,852	4,480
1963-64	..	..	17,801	..	16,272	19,433	..	4,514	..	4,247	4,940
1964-65	..	..	19,563	..	17,488	20,822	..	5,260	..	4,801	5,577
1965-66	..	..	20,497	..	17,689	21,172	..	5,709	..	5,069	5,899
1966-67	..	..	22,536	..	18,869	22,536	..	5,993	..	5,151	5,993
1967-68	..	..	24,031	..	..	23,386	..	6,523	..	..	6,343
1968-69	..	..	26,972	..	..	25,389	..	7,219	..	..	6,771
1969-70	..	..	29,813	..	..	26,862	..	7,951	..	..	7,151
1970-71	..	..	32,763	..	..	28,015	..	8,740	..	..	7,407
1971-72	..	..	36,396	..	..	29,132	..	9,405	..	..	7,455
1972-73	..	..	41,178	..	..	30,286	..	9,629	..	..	7,156
1973-74p	..	..	49,781	..	..	31,918	..	11,498	..	..	7,602

(a) For a description of constant price estimates, see *Australian National Accounts, op. cit.* pp 15 and 105. (b) N. G. Butlin, *Australian Domestic Product, Investment and Foreign Borrowing 1861—1938-39*, Cambridge University Press, Cambridge, 1962. Gross domestic product excluding livestock, accumulation approximates conceptually gross domestic product as defined in the Australian National Accounts. (c) Published by the Commonwealth Statistician. Figures prior to 1948-49 are from *National Income and Expenditure 1955-56* and are not strictly comparable with subsequent figures because of a number of definitional changes and statistical revisions; see pages 18-19, 117-20, *Australian National Accounts 1948-49 to 1961-62*, Commonwealth Bureau of Census and Statistics. (d) *Australian National Accounts 1972-73*, Australian Bureau of Statistics, and, for the last five years, the Budget Paper No. 10, *National Income and Expenditure 1973-74*. The figures of \$1,800m for gross national product and \$316m for gross fixed capital expenditure in 1938-39 are based on a reconstruction of earlier estimates, and are approximately consistent with the present Australian National Account series. Mr B. D. Haig ('1938-39 National Income Estimates', *Australian Economic History Review*, Vol. vii, No. 2, September 1967) has adjusted components of gross national expenditure and imports and exports for changes in prices. If the price indexes implied by Mr Haig's estimates are used to revalue at 1938-39 prices gross domestic product and gross fixed capital expenditure for 1948-49, values of \$2,384m and \$434m, respectively are obtained. (e) N. G. Butlin, *op. cit.* For a variety of reasons, Professor Butlin's gross domestic capital formation figures given here differ conceptually from those for gross fixed capital expenditure in the Australian National Accounts.

PRIVATE FINANCE

NOTE ISSUE	BANKING				
	Australian note issue (a)	Trading banks		Bank clearings (c)	Savings banks Depositors balances(d)
		Advances (b)	Deposits (b)		
Year ended 30 June—					
	\$m	\$m	\$m	\$m	\$m
1902		188	186	13	62
1912	16	238	300	25	118
1922	107	364	578	65	308
1932	103	522	638	55	396
1942	205	648	965	142	549
				Debits to customers' accounts (e)	
1946	400	519	1,397	(e)296	1,327
1947	405	672	1,445	349	1,320
1948	393	824	1,598	451	1,363
1949	426	966	1,830	514	1,428
1950	463	1,148	2,264	655	1,524
1951	551	1,357	2,826	897	1,675
1952	605	1,656	2,564	866	1,784
1953	657	1,450	2,856	877	1,895
1954	688	1,690	3,061	1,100	2,020
1955	726	1,982	3,089	1,127	2,145
1956	745	1,945	2,992	1,123	2,282
1957	763	1,897	3,231	1,250	2,455
1958	775	2,060	3,240	1,282	2,594
1959	790	2,007	3,362	1,432	2,783
1960	843	2,211	3,611	1,737	3,045
1961	839	2,238	3,600	1,654	3,155
1962	856	2,287	3,837	1,848	3,470
1963	869	2,465	4,064	2,028	3,940
1964	870	2,610	4,649	2,318	4,476
1965	862	2,955	5,038	2,653	4,887
1966	849	3,183	5,308	2,672	5,254
1967	938	3,548	5,614	2,978	5,765
1968	1,006	4,020	6,087	3,588	6,222
1969	1,107	4,384	6,706	4,055	6,707
1970	1,216	4,903	7,099	4,891	7,105
1971	1,369	5,317	7,431	5,711	7,635
1972	1,499	5,876	8,322	6,200	8,391
1973	1,751	7,854	11,072	8,085	10,238
1974	2,112	10,120	12,714	8,988	11,196

(a) Last Wednesday in June. (b) June quarter up to and including 1945; weekly average for month of June from 1946 onwards. (c) Weekly average, June month. (d) End of June. (e) Bank clearings, \$179m.

LIFE INSURANCE(a)(b)

	Ordinary(c)		Industrial		Total	
	Policies	Sum assured	Policies	Sum assured	Policies	Sum assured
	'000	\$m	'000	\$m	'000	\$m
1901	414	216	236	10	650	226
1911	484	218	467	20	951	238
1921	730	362	973	60	1,703	422
1931	871	570	1,550	134	2,421	704
1941	1,340	926	2,780	254	4,120	1,180
1945	1,587	1,157	3,279	327	4,866	1,484
1946	1,730	1,310	3,429	357	5,159	1,667
1947	1,902	1,481	3,541	386	5,442	1,867
1948	2,071	1,669	3,643	418	5,714	2,087
1949	2,224	1,862	3,725	448	5,949	2,310
1950	2,377	2,094	3,793	477	6,170	2,571
1951	2,554	2,424	3,843	507	6,396	2,931
1952	2,731	2,757	3,873	541	6,604	3,298
1953	2,893	3,105	3,881	571	6,774	3,677
1954	3,033	3,482	3,827	594	6,860	4,076
1955	3,184	3,942	3,766	615	6,949	4,556
1956	3,319	4,447	3,702	631	7,021	5,077
1957	3,446	5,067	3,615	645	7,061	5,712
1958	3,577	5,747	3,531	657	7,108	6,404
1959	3,710	6,571	3,443	665	7,154	7,236
1960	4,110	7,690	3,340	686	7,450	8,376
1961	4,201	8,743	3,199	707	7,400	9,450
1962	4,291	9,854	3,076	743	7,366	10,597
1963	4,401	11,010	2,953	777	7,354	11,787
1964	4,539	12,481	2,851	823	7,390	13,304
1965	4,705	14,057	2,755	871	7,460	14,928
1966	4,873	15,750	2,644	918	7,517	16,668
1967	5,051	17,762	2,603	981	7,654	18,743
1968	5,251	20,357	2,561	1,041	7,812	21,397
1969(d)	5,428	23,245	2,530	1,114	7,958	24,360
1970	5,607	27,229	2,500	1,212	8,107	28,441
1971	5,873	32,258	2,471	1,329	8,344	33,586
1972	6,143	37,522	2,389	1,442	8,532	38,964
1973(e)	6,400	44,293	2,300	1,539	8,700	45,832

(a) Existing business in Australia. (b) Relates to companies' financial years which ended during the calendar years shown. (c) Includes superannuation business. (d) Prior to 1969 includes business in Papua New Guinea. (e) Figures relate to end of December and are derived from monthly figures.

PUBLIC FINANCE

Year ended 30 June—	AUSTRALIAN GOVERNMENT				STATE				GOVERNMENT SECURITIES ON ISSUE(a)				
	Consolidated revenue fund		Net loan fund expenditure (b)	Taxation collections	Consolidated revenue fund		Net loan expenditure (b)	Taxation collections	Australian Government	State	Total	Over-seas	In Australia
	Revenue	Expenditure			Revenue	Expenditure							
1902	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
1912	23	8	18	56	58	19	5	429	429	n.a.	n.a.	n.a.	n.a.
1912	41	29	2	32	82	33	11	12	557	569	388	181	181
1922	128	128	10	99	170	175	67	36	708	1,039	1,747	823	924
1932	143	143	8	109	199	242	12	65	692	1,800	2,492	1,320	1,172
1942	420	420	426	362	305	299	17	115	1,340	2,038	3,378	1,312	2,066
1946	782	782	319	709	332	331	14	50	3,670	2,005	5,675	1,142	4,533
1947	863	863	98	774	346	350	48	57	3,733	2,044	5,777	1,130	4,647
1948	932	932	26	848	394	398	75	64	3,702	2,119	5,821	1,117	4,704
1949	1,109	1,109	—9	952	452	456	102	73	3,685	2,202	5,887	1,088	4,798
1950	1,161	1,161	85	1,018	521	525	147	83	3,731	2,367	6,098	1,099	4,999
1951	1,684	1,684	101	1,447	613	613	257	103	3,777	2,619	6,396	1,067	5,329
1952	2,034	2,034	63	1,848	777	783	395	126	3,838	2,993	6,830	1,113	5,717
1953	2,080	2,080	71	1,783	876	877	322	142	3,893	3,288	7,181	1,142	6,038
1954	2,046	2,046	83	1,810	941	935	335	161	3,964	3,573	7,537	1,165	6,372
1955	2,135	2,135	66	1,882	991	998	321	179	3,998	3,846	7,844	1,216	6,628
1956	2,277	2,277	88	2,014	1,052	1,082	312	196	4,031	4,121	8,151	1,269	6,882
1957	2,624	2,624	88	2,208	1,154	1,168	317	229	3,957	4,396	8,353	1,216	7,137
1958	2,648	2,648	90	2,338	1,210	1,224	314	256	3,670	4,686	8,356	1,248	7,108
1959	2,592	2,592	132	2,283	1,280	1,295	338	276	3,512	4,988	8,499	1,319	7,180
1960	2,877	2,877	119	2,519	1,399	1,404	357	320	3,334	5,301	8,635	1,389	7,246
1961	3,277	3,277	83	2,871	1,511	1,513	384	335	3,215	5,630	8,845	1,413	7,433
1962	3,283	3,283	182	2,858	1,609	1,617	395	353	3,119	5,963	9,082	1,424	7,658
1963	3,371	3,371	274	2,907	1,694	1,996	405	391	3,121	6,314	9,434	1,522	7,912
1964	3,809	3,809	226	3,247	1,829	1,829	438	448	3,172	6,691	9,863	1,545	8,318
1965	4,418	4,418	167	3,819	1,947	1,965	477	493	3,134	7,091	10,225	1,529	8,695
1966	4,879	4,879	(c)260	4,221	2,094	2,119	492	536	3,145	7,495	10,639	1,505	9,134
1967	5,228	5,228	(c)450	4,492	2,286	2,289	516	601	3,275	7,934	11,209	1,532	9,677
1968	5,760	5,760	(c)655	4,952	2,463	2,468	540	683	3,600	8,317	11,917	1,558	10,358
1969	6,086	6,086	(c)236	5,528	2,689	2,700	574	781	3,682	8,831	12,512	1,698	10,815
1970	6,979	6,979	(c)446	6,380	3,010	3,028	615	875	3,885	9,320	13,205	1,580	11,625
1971	7,838	7,838	(c)523	7,183	3,457	3,483	628	913	3,801	9,691	13,492	1,546	11,946
1972	8,688	8,688	(c)444	7,937	4,035	4,050	896	1,304	3,808	10,227	14,035	1,442	12,592
1973	9,278	9,278	(c)544	8,469	4,675	4,704	973	1,667	3,963	10,781	14,744	1,265	13,479
1974	11,976	11,976	(c)641	10,921	5,492	5,541	868	2,074	4,088	11,219	15,306	1,032	14,274

(a) At 30 June. Expressed in Australian currency equivalents at ruling rates of exchange. (b) Loan expenditure on works and services. (c) Includes expenditure financed under the United States Defence Credits Arrangements.

SOCIAL PENSIONS, BENEFITS, ETC.

Year ended 30 June—	Age and invalid pensions		Child endowment		Widows' pensions		Unemployment benefits	
	Pensioners (a)	Amount paid	Children endowed (a)	Endow-ment paid	Pensioners (a)	Amount paid	No. on benefit—weekly average	
							Amount paid	Amount paid
1902	'000	\$m	'000	\$m	'000	\$m	'000	\$m
1912	90	4.3	..	..	..	..	..	..
1922	147	10.8	..	..	..	..	..	..
1932	261	22.3	..	..	..	..	..	..
1942	341	38.5	910	22.6	..	..	..	..
1946	333	53.9	965	36.0	45	6.5	6	1.0
1947	364	58.8	1,007	(b)39.7	43	6.7	9	1.8
1948	381	73.1	1,050	38.9	43	7.8	4	0.7
1949	403	83.4	1,105	48.6	43	8.8	2	..
1950	414	89.1	1,836	(b)60.7	43	8.8	13	2.5
1951	417	99.0	2,389	87.2	42	9.7	1	(c)
1952	426	119.6	2,518	93.2	41	11.2	2	(c)
1953	451	144.8	2,624	(b)106.5	41	12.7	30	9.1
1954	478	162.6	2,717	101.5	41	13.2	14	5.0
1955	510	176.0	2,789	105.1	42	13.7	4	1.4
1956	535	203.3	2,876	(b)120.8	43	15.4	4	1.4
1957	554	218.4	2,978	114.1	45	17.7	12	4.2
1958	574	243.2	3,074	117.5	47	19.7	24	9.8
1959	598	259.1	3,172	(b)135.1	50	21.6	28	11.9
1960	619	294.0	3,252	125.1	52	24.3	21	9.0
1961	651	315.9	3,340	(b)148.6	55	26.9	22	8.9
1962	691	360.5	3,420	132.8	57	30.2	53	25.3
1963	711	375.5	3,458	135.4	58	31.4	40	21.3
1964	725	399.9	3,631	(b)168.8	62	41.6	26	13.5
1965	736	426.6	3,711	172.8	65	47.0	14	6.8
1966	744	442.4	3,763	176.4	69	50.0	15	7.8
1967	764	481.8	3,835	(b)199.3	73	56.4	21	11.2
1968	797	514.0	3,891	187.9	75	61.1	21	11.2
1969	827	558.6	3,996	193.3	78	69.1	18	9.3
1970	913	642.0	4,079	(b)220.1	87	81.8	13	8.9
1971	942	702.3	4,156	198.5	90	90.5	15	10.8
1972	972	818.5	4,235	216.6	93	104.6	29	26.0
1973	1,081	1,072.4	4,239	(b)253.9	106	140.5	40	46.6
1974	1,184	1,372.4	4,261	225.4	115	181.0	34	58.2

(a) At 30 June. (b) Five 12-weekly payments made during the year instead of the normal four. (c) Less than \$0.05m.

SOCIAL—continued
PENSIONS, BENEFITS ETC.—continued

Year ended 30 June—	Hospital and nursing- home benefits— amount paid	Medical benefits— amount paid	Phar- maceutical benefits— amount paid	Total Australian Government expenditure on pensions, benefits, etc.(a)	War pensions		Service pensions	
					No.(b)	Amount paid	No.(b)	Amount paid
	\$m	\$m	\$m	\$m	'000	\$m	'000	\$m
1902	..	..	..	..	..	..	..	..
1912	..	..	..	4.3	..	..	..	..
1922	..	..	..	12.1	225	14.1	..	..
1932	..	..	..	23.0	274	14.9	..	..
1942	..	..	..	61.8	220	15.0	14	1.2
1946	2.2	..	..	106.4	360	26.6	13	1.6
1947	8.8	..	..	124.0	395	30.2	14	1.8
1948	8.9	..	..	137.2	416	32.7	16	2.5
1949	11.8	..	..	161.6	440	37.9	16	2.7
1950	12.6	..	0.1	185.6	471	42.1	16	2.9
1951	13.1	..	5.9	230.0	503	53.1	17	3.0
1952	13.4	2.1	15.4	275.2	525	66.7	17	3.6
1953	14.4	3.5	14.4	331.0	544	72.6	19	4.5
1954	16.7	7.2	18.5	353.1	564	78.1	21	5.4
1955	18.6	13.5	21.5	378.6	584	87.8	22	6.0
1956	19.1	14.6	23.8	429.7	600	91.3	25	8.3
1957	19.6	18.3	23.4	447.8	614	95.6	39	9.8
1958	21.6	20.6	30.1	495.0	629	106.6	42	11.3
1959	29.6	23.2	41.9	556.5	643	109.0	44	12.4
1960	37.2	26.8	48.7	598.7	655	117.5	46	13.5
1961	41.3	28.4	55.8	661.2	662	132.6	50	15.6
1962	44.4	30.6	70.4	730.4	671	135.1	58	19.4
1963	47.3	32.6	76.9	758.6	671	140.7	62	21.7
1964	56.2	34.4	78.8	832.7	669	154.5	65	24.2
1965	58.8	44.6	82.2	890.4	660	153.5	65	25.5
1966	60.7	54.6	91.8	941.6	647	170.5	66	28.2
1967	67.4	58.2	101.3	1,031.1	632	161.7	67	29.1
1968	74.8	62.5	105.1	1,075.0	617	164.4	69	31.8
1969	85.9	66.5	118.4	1,162.3	601	182.8	67	34.1
1970	111.4	76.1	136.7	1,341.8	585	183.5	74	39.9
1971	122.8	115.5	160.3	1,477.2	570	191.4	77	43.7
1972	162.0	160.4	173.3	1,752.3	553	211.1	78	49.2
1973	198.9	191.1	177.6	2,197.4	546	225.0	96	72.3
1974	226.5	198.9	218.3	2,666.2	532	252.2	109	103.6

(a) National Welfare Fund items only, including expenditure for all years on pensions, benefits, etc., which subsequently became payable from the National Welfare Fund. In addition to the items shown in the preceding columns, the tables include expenditure on—the rehabilitation service; milk for school children; tuberculosis campaign; sickness, special and funeral benefits and some miscellaneous welfare and health services. Excludes war and service pensions, telephone rental concessions for pensioners and some minor welfare and health services. (b) At 30 June.

EDUCATION

POLICE AND PRISONS

Year(a)	Schools				Universities		Police	Prisons	Convicted prisoners
	Government		Non-government		Number	Students			
	Schools	Pupils	Schools	Pupils					
	'000	'000	'000	'000		'000	'000	No.	'000
1902	7.2	637	2.4	144	4	1.9	5.9	n.a.	4.2
1912	8.4	663	1.9	164	6	3.8	6.6	101	3.4
1922	9.6	837	1.7	202	6	7.8	7.0	92	3.0
1932	10.2	934	1.8	221	6	9.9	8.6	85	4.1
1942	9.0	868	1.8	250	6	10.6	9.7	71	3.5
1946	8.3	887	1.8	277	7	25.0	9.9	70	3.6
1947	8.2	906	1.9	281	7	30.0	10.2	73	3.8
1948	8.0	928	1.8	281	7	31.9	10.6	72	3.5
1949	7.9	971	1.8	293	8	31.1	11.1	71	3.8
1950	7.8	1,027	1.9	310	8	30.0	11.5	70	4.0
1951	7.6	1,078	1.9	326	8	31.1	11.9	70	4.2
1952	7.6	1,145	1.9	348	8	29.1	12.6	69	4.8
1953	7.6	1,206	2.0	366	8	28.3	12.7	70	4.8
1954	7.6	1,275	2.0	388	9	28.9	12.6	71	4.8
1955	7.6	1,337	2.1	410	9	30.3	12.9	72	5.1
1956	7.7	1,357	2.1	432	9	34.0	13.5	73	6.0
1957	7.7	1,427	2.0	453	9	36.6	14.1	73	6.4
1958	7.8	1,498	2.0	474	10	41.5	14.5	73	6.6
1959	7.8	1,560	2.1	492	10	47.2	14.9	74	6.6
1960	7.9	1,613	2.1	511	10	53.4	15.3	77	6.8
1961	7.9	1,662	2.1	527	10	57.7	15.9	75	7.2
1962	7.9	1,711	2.2	540	10	63.3	16.4	74	7.4
1963	7.9	1,754	2.2	553	10	69.1	16.7	73	7.7
1964	7.8	1,799	2.2	565	13	76.2	17.2	74	7.7
1965	7.8	1,855	2.2	580	13	83.3	17.6	74	7.7
1966	7.8	1,919	2.2	583	14	91.3	18.4	76	8.1
1967	7.7	1,991	2.2	595	14	95.4	19.0	75	8.7
1968	7.6	2,055	2.2	601	14	101.5	19.7	79	8.8
1969	7.5	2,114	2.2	603	14	109.7	20.1	74	9.2
1970	7.5	2,160	2.2	608	17(b)	116.8	20.3	77	9.3
1971	7.4	2,197	2.2	611	17(b)	123.8	21.0	79	9.5
1972	7.4	2,229	2.2	612	17(b)	128.7	22.2	80	9.8
1973	7.3	2,241	2.2	613	17(b)	133.1p	23.1	85	9.1

(a) Years ended at varying dates for education statistics. Years ended 30 June for Police and Prisons. (b) Includes two universities not yet enrolling students.

CHRONOLOGICAL TABLE

CHIEF EVENTS IN AUSTRALIA SINCE 1955

NOTES. In issues of the Year Book up to No. 48 (*see* No. 48, page 1201) this table covered events back to the establishment of settlement in Australia in 1788. Later issues up to No. 50 (*see* No. 50, page 1289) covered events back to 1945. This issue covers the years 1955 to 1973 and the first half of 1974.

For each earlier year this Table rarely contains more than two or three items; for recent years, however, in order to provide a wide cover of events, etc., it includes a much greater number. Both the nature of the Table and considerations of space render necessary a continual reduction in these items, and for more information the reader should therefore consult earlier issues.

- 1955 First power generated by Snowy Mountains Hydro-electric Authority. Australian population reached 9,000,000. Cocos (Keeling) Islands became Territory under authority of Commonwealth.
- 1956 Amendment to Conciliation and Arbitration Act altered the structure of the arbitration machinery by separating judicial functions from conciliation and arbitration functions.
- 1957 High Court ruled that interstate vehicles could not be compelled to register in New South Wales, but upheld validity of Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads. National Capital Development Commission set up to co-ordinate development of Canberra.
- 1958 Prime Minister officially opened Australia's first nuclear reactor at Lucas Heights, near Sydney. Christmas Island (Indian Ocean) transferred to Australian Administration.
- 1959 Annual Holidays Act, 1944-1958 provided for three weeks' annual holiday for all New South Wales workers. Population reached 10,000,000.
- 1960 Provision made for Social Service benefits to be paid to Australian Aborigines. *Commonwealth Banks Act* 1959 and *Reserve Bank Act* 1959 proclaimed. Commonwealth Government announced special economic measures designed to counter inflationary trend and safeguard overseas funds.
- 1961 Commonwealth *Matrimonial Causes Act* 1959 unifying State Acts became operative. Oil discovered in south-west Queensland. Iron ore deposits estimated at 1,800 million tons discovered at Pilbara (Western Australia).
- 1962 Commonwealth and Western Australian Electoral Acts amended to provide for votes for Aborigines. Aborigines exercising voting rights in Northern Territory for first time.
- 1963 Approval given to agreement for United States to operate a naval communications station at North West Cape, Western Australia. Australian population reached 11,000,000.
- 1964 R.A.N. Destroyer *Voyager* sunk in collision off Jervis Bay. New South Wales Government employees granted four weeks' annual leave. Moonie to Brisbane oil pipeline opened. Northern Territory removed discrimination against Aborigines. Resumption of National Service Training and establishment of special Reserve Forces announced.
- 1965 Full High Court judgment on intra-state airlines case held that intra-state services need to hold both a State licence and a Commonwealth licence. Martin Report on tertiary education tabled in House of Representatives. Economic sanctions imposed on Rhodesia.
- 1966 Australia adopted decimal currency. Immigration laws amended to provide for relaxation of restrictions on entry of persons of non-European race. Member for Australian Capital Territory given full voting rights. Permanent employment of married women by Australian Government proclaimed.
- 1967 Worst bushfires in history of Tasmania. *Trade Practices Act* 1965-1967 came into force. Australian Resources Development Bank formed. Australia launched its first satellite at Woomera. Senate select committee recommended that Australia change over to metric system of weights and measures.

- 1968 Joint Commonwealth-State off-shore petroleum legislation operated from 1 April. Population reached 12,000,000. Northern Territory member in House of Representatives given full voting rights. *Privy Council (Limitation of Appeals) Act 1968* came into operation.
- 1969 The Arbitration Commission handed down its decision on equal pay for women. The High Court ruled that the States had no rights or jurisdiction over territorial waters adjacent to their coastline or over the sea-bed. Bass Strait under-sea oil piped to shore for the first time.
- 1970 The Federal Government imposed controls on the export of Australian natural gas. Australia signed the Nuclear Non-Proliferation Treaty. A High Court judgment upheld the validity of the Trade Practices Tribunal. The *Continental Shelf (Living Natural Resources) Act 1968* came into effect. The Metric Conversion Board appointed. Two land lease ordinances granting the Aborigines exclusive land leasing rights for specified purposes over the 93,000 square miles of Aboriginal reserves in the Northern Territory assented to. Coal miners in three States were awarded a 35 hour working week. The flexible reserve wool price scheme came into operation. Voting age reduced to 18 years in Western Australia.
- 1971 South Australia lowered the age of adulthood to eighteen years. The Yirrkala Aborigines legal challenge for land rights at Gove was dismissed. Australia signed a new five power defence agreement in London. Seabed agreement between Indonesia and Australia signed in Canberra. Australia joined the Organisation for Economic Co-operation and Development. An Australian Labor Party delegation of five left for a visit to China (People's Rep). The 1971 Census of Population and Housing was held. Legislation banning resale-price maintenance became operative. Rural reconstruction employment training scheme commenced for farmers displaced from rural industry. The operational role of the Australian Task Force in South Vietnam ended. Australian Commission on Advanced Education was established.
- 1972 Female employees (approximately 1,300,000) received full entitlement to equal pay in terms of the 1969 Equal Pay Case decision. Australia's largest trade union, with over 150,000 members came into being with the merging of the Boilermakers' and Blacksmiths' Society, and the Sheet Metal Workers' Union with the Amalgamated Engineering Union. The revised Trade Practices Act—the *Trade Practices Act 1971*—became operative. State elections held and the Labor Party came into office in Tasmania. State elections were held in Queensland and the Country Party-Liberal Party coalition was returned. The A.C.T.U. placed a black ban on all French ships and aircraft in Australia as a protest against continuing French nuclear testing in the Pacific; this ban was followed by widespread protests against the tests. A 35-hour week was granted to waterside workers. The Australian Wool Board and the Australian Wool Commission were amalgamated to form the Australian Wool Marketing Corporation. The Ord River Dam was officially opened. Petrol supplies seriously disrupted between June and August by a dispute between oil companies and maintenance workers. The report of the Randall Committee set up to investigate the marketing of wool was tabled in the House of Representatives. In keeping with the change to metric units, Celsius was adopted in lieu of Fahrenheit for recording temperatures. Australia and Indonesia signed an agreement fixing the sea bed boundary between Australia and Indonesian Timor. Australia experienced its first domestic air hijack. The new Foreign Take-overs Act, which came into force on 31 October, was used to freeze a number of take over bids. Federal elections for the House of Representatives were held and the Australian Labor Party was elected to govern for the first time in 23 years. The new Labor Government ended the call-up of National Servicemen; released National Service Act offenders; removed the excise duty on wine; announced that National Servicemen completing their training would be eligible for war service homes; announced the intention to apply for the 'equal pay case' to be re-opened and announced that in future sporting teams selected on a racial basis would be excluded from Australia. The Interim Committee, Australian Schools Commission, was appointed. The appointment of Miss Elizabeth Evatt as the first woman Presidential Member of the Conciliation and Arbitration Commission was announced. Australia announced the establishment of diplomatic relations with the People's Republic of China and the German Democratic Republic.
- 1973 *January.* For the first time, the Arbitration Commission awarded some workers full wages while they are on workers' compensation. It was announced that Australia would ratify the Nuclear Non-proliferation Treaty and the Seabed Arms Control Treaty. It was agreed that Albury-Wodonga area would be developed as a new growth complex.
- February.* Changes in Australian divorce rules came into operation. The United Kingdom-Australia Trade Agreement terminated. It was announced that an environment impact statement must be prepared for all developmental projects which have significant environmental consequences where Australian Government funds and or Federal constitutional

power is involved. It was announced that a National Pipeline Authority would be established to build a natural gas pipeline system across Australia. The Aboriginal Consultative Committee held its first meeting. The first session of the 28th Parliament was opened.

March. The Labor Party was returned following elections in South Australia. Committee of Inquiry into a National Superannuation Scheme appointed. The export ban on kangaroo products became effective. Legislation giving votes to eighteen year olds became effective under the *Commonwealth Electoral Act 1973*.

April. Federal Government appointed an 11 member National Committee on Social Welfare.

May. National Wage Case decision resulted in an increase in Federal award wages of 2 per cent plus \$2.50 a week. The rates of minimum wage for adult males were increased by \$9.00 a week (*see* page 284). The A.C.T. Abortion law reform legislation was defeated by 98 votes to 23 in the House of Representatives. An Australia-wide union ban on French goods, ships, aircraft and communication began in response to the forthcoming French nuclear tests. Victorian State elections were held and the Victorian Liberal Party was returned to government.

June. The Australian Government rejected the Australian Medical Association's decision to raise fees by an estimated 24.8 to 29.0 per cent. Following an application by Australia the International Court of Justice ordered France to halt nuclear tests in the atmosphere over the Pacific Ocean. Maternity leave granted to women employees in the Australian Public Service.

July. It was announced that the Australian Government would provide \$218 million to the States for low-cost housing. The Melba Community Health Centre was opened in Canberra; it was built by the Government and manned by salaried medical staff. The Australian Government cut all tariffs by 25 per cent and announced that assistance would be provided for firms and employees affected by the tariff cuts. The Government announced that the Montreal Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation had been ratified. A three-year Trade Agreement between Australia and the People's Republic of China was signed in Canberra. The Prime Minister left Australia on a twenty-two day visit to Mexico, the United States of America and Canada.

August. The H.M.A.S. *Supply* which had entered the French nuclear test zone with the New Zealand frigate *Otago* in June was withdrawn. The *Prices Justification Act 1973* which created the Prices Justification Tribunal, came into operation. The Literature Board of the Australian Council for the Arts announced the concept of a guaranteed income for selected Australian writers. New rules promulgated by the Broadcasting Control Board in June 1973, which applied a points system to TV program content, became operative. The new satellite telecommunications system directly linking Australia and the People's Republic of China started operating.

September. Australian Government and State leaders met in Sydney for the first national constitutional convention since Federation. The Prime Minister announced that interest rates on Australian Government Securities would be increased and the Australian dollar would be appreciated by 5 per cent as anti-inflationary measures. The death penalty was abolished in the Australian Capital Territory and the Northern Territory. A bus disaster near Cabramurra in the Snowy Mountains caused the death of at least 18 persons and injury to others.

October. The Medical Fees Tribunal set up by the Australian Government in July handed down its first decision which endorsed an increase in general practitioner fees of approximately 20 per cent. Australia's newest banknote the \$50 note became available. The Duke of Edinburgh arrived in Canberra to begin a three-weeks official tour of Australia: he was joined after three days by Queen Elizabeth II for a five-day visit principally to open the Sydney Opera House on 20 October. The *Blythe Star* was lost off the coast of Tasmania with the loss of 3 lives; 7 survivors were rescued 8 days after the sinking. The Albury-Wodonga Development Agreement was signed by the Prime Minister and the Premiers of New South Wales and Victoria. The Prime Minister left on an eight-day visit to Japan and the People's Republic of China.

November. The Liberal-Country Party coalition was returned to office following elections in New South Wales. The Departments of the Navy, Army and Air were abolished and amalgamated with the Department of Defence.

December. A ship reporting system commenced operating around Australia. Following agreement between unions and companies, workers in the oil industry were granted a 35-hour week from June 1974. Papua New Guinea attained self-Government. The Industries Assistance

Commission, which replaced the Tariff Board, began operating. The Referendums to grant power to the Australian Government to control both prices and incomes were defeated in every State. (See page 90). A report by the Australian Pre-schools Committee was tabled in Parliament. Following the adoption of the Karmel Report and the revised classification of schools after appeals, legislation was passed to grant \$700 million in aid to Government and non-Government schools over the ensuing two years.

1974 *January*. The abolition of tuition fees at all Australian Universities and other tertiary education colleges became effective. Heavy rains deluged southern Queensland and north-western New South Wales causing serious flooding in the Namoi, Castlereagh and Barwon river systems with an estimated one million sheep marooned. More rain occurred in central Queensland and 600 residents of Normanton were air-lifted to safety from the floods; tropical Cyclone Wanda brought further serious flooding to the Queensland south coast, and the Brisbane area was inundated by floods with the loss of 13 lives. The value of cattle losses in Queensland were estimated at \$100 million. By the end of January virtually the whole of the north-eastern quarter of Australia had been subject to some measure of flooding caused by rains from the monsoonal troughs. The Prime Minister left on a two-week visit to South-East Asia which included Malaysia, Thailand, Laos, Burma, the Philippines and Singapore. The Government of the United States of America agreed to the naval communications base at North West Cape being operated by the armed forces of the two governments as a joint facility.

February. It was announced that a Natural Disaster Organisation would be established to replace the existing Civil Defence Organisation. Saturday mail deliveries ceased. Queen Elizabeth II visited Australia and opened the Second Session of the Twenty-eighth Australian Parliament.

March. Floods caused by Cyclone Zoe hit southern Queensland and northern New South Wales for the second time in six weeks. Australia's first Aboriginal Special Magistrate was sworn in in Canberra's Supreme Court, his area of jurisdiction being Jervis Bay. Following an outbreak of anthrax at Werribee, Victoria, 1,000 cattle in the area were vaccinated. The first appointment of a woman career diplomat (Miss Ruth Dobson) as an Australian Ambassador was announced; she became Australia's first resident Ambassador to Denmark. State elections were held in Western Australia and the coalition of the Liberal Party and the National Alliance (Country Party-D.L.P.) came to power. The Bass Strait cargo ship *Straitisman* capsized in the River Yarra with the loss of 2 lives.

April. In an action which challenged the validity of the Tasmanian Government's tax on the consumption of tobacco, the Full High Court ruled that a tax on consumption was not a duty of excise, and was therefore valid. A report of the Interim Committee of the Hospital and Health Services Commission was tabled in Parliament. The Australian Government announced plans to build a \$56 million maximum security laboratory at Geelong to protect Australian livestock against exotic diseases. To begin in 1976-77 the laboratory will be administered and operated by CSIRO and completion is planned for 1981. Following a public opinion poll, Advance Australia Fair became the national anthem—but God Save the Queen will be used on special occasions to honour the Queen or to acknowledge Australia's links with Britain. Following the Senate's failure to pass the *Commonwealth Electoral Act (No. 2) 1973*, the *Senate (Representation of Territories) Act 1973*, the *Representation Act 1973*, the *Health Insurance Commission Act 1973*, the *Health Insurance Act 1973*, and the *Petroleum and Minerals Authority Act 1973*, the Governor-General proclaimed the simultaneous dissolution of the Senate and the House of Representatives as provided for under Section 57 of the Constitution. The Prime Minister announced the acceptance of the recommendations of the Royal Commission into the Australian Post Office to establish separate statutory authorities to administer the postal and the telecommunications services; the latter to include the Overseas Telecommunications Commission.

May. The National Wage Case resulted in an increase in Federal award wages for adult males and adult females of 2 per cent plus \$2.50 a week. The Australian Conciliation and Arbitration Commission increased the minimum wage for adult males by \$8.00 a week and extended the minimum wage to adult females to be phased in in three steps so that 100 per cent of the adult minimum wage would be received by 30 June 1975. (For details see page 284). Torrential rain disrupted rail and road traffic; caused blackouts and flooded homes in Melbourne and eastern Victoria. Following the double dissolution of the Australian Parliament the Australian Labor Party was returned to office with a working majority; the Senate membership was Australian Labor Party 29, the Liberal-Country Parties 29 and 2 Independents (see page 86). Four referendums conducted simultaneously with the elections, were lost (see page 91). A severe 3-day storm which battered Sydney and the central New

South Wales coast caused about \$20 million damage to seaside homes and to shipping; at least three persons were killed. The Minister for the Media announced that colour TV would commence in Australia on 1 March 1975.

June. The regulation prohibiting Australian Government Public Servants from making public comment on administrative matters was repealed. The Distillers Company, makers of thalidomide, announced that 17 children born with deformities caused by thalidomide would receive a settlement of \$1.7 million. The Prime Minister announced details of a Royal Commission into the Australian Public Service (the first in 54 years), to be headed by Dr Coombs. It was announced that all States had signed the Urban Public Transport Assistance Agreement by which the Australian Government would provide two-thirds of the cost of projects (\$73 million) as non-repayable grants over a five-year period to improve urban public transport in the six capital cities, and \$3 million for research and planning. The Federal Cabinet accepted the major recommendations of the Woodward Report on land rights for Northern Territory Aboriginals.

DIARY OF PRINCIPAL ECONOMIC EVENTS, 1973-74

The principal economic events in earlier years were shown in the following issues.

<i>Years</i>	<i>Year Book No.</i>	<i>Pages</i>
1931 to 1938	33	968-77
1939 to 1944	36	1129-41
1945 to 1948	37	1235-45
1949 to 1951	39	1331-40
1952 to 1955	42	1149-60
1956 to 1958	46	1185-92
1958-59 to 1961-62	48	1188-1200
1962-63	49	1253-56
1963-64	50	1283-88
1964-65	51	1269-74
1965-66	52	1185-88
1966-67	53	1279-82
1967-68	54	1253-57
1968-69	55	1243-48
1969-70	56	1077-81
1970-71	57	1053-59
1971-72	58	1049-54
1972-73	59	1067-74

The Australian economy in 1973-74 maintained a high level of demand which was met by increases in domestic production and a substantial increase in imports. The pressures of this strong demand on resources and the occurrences of shortages led to a continuation of increases in costs and prices. The prevalence of these factors resulted in the rate of inflation during 1973-74 being the highest for over 20 years.

As indicated by the movement in the Consumer Price Index, the rate of inflation was 14.4 per cent, compared with 8.2 per cent in 1972-73. The major influences on this index originated from the food and clothing and drapery groups with price rises of 17.6 per cent and 17.2 per cent respectively.

Wholesale prices also increased significantly with the rises in the prices of building materials in 1973-74 being more than double those of 1972-73. The wholesale price index of materials used in house building increased by 15.4 per cent in 1973-74 compared with 6.8 per cent in the preceding year. Prices of materials used in building other than house building rose by 13.2 per cent compared with 4.8 per cent in 1972-73.

The overall performance of economic activity in the Australian economy can be summarised by the rate of growth in gross domestic product at constant prices. During 1973-74 this aggregate increased by 5.4 per cent compared with 4.0 per cent in the previous two years. The non-farm component increased by 5.5 per cent following rises of 5.6 per cent in 1972-73 and 3.7 per cent in 1971-72. Gross farm product, at constant prices, rose by 4.5 per cent for the year compared with a decline of 11.7 per cent in 1972-73 and a rise of 6.7 per cent in 1971-72.

The economic situation of the farm sector continued to improve with increased grain production and higher prices for wheat, other grain crops and meat. As a result the gross value of farm production increased by 30.7 per cent following a rise of 25.0 per cent in 1972-73. The main component of this increase in the value of production was wheat which rose by 349.0 per cent after a decline of 21.9 per cent in 1972-73. Because of this increase in the gross value of farm production, farm income rose by 64.9 per cent compared with a rise of 56.9 per cent in 1972-73.

The continuation from 1972-73 of the downward trend in the number of registered unemployed, seasonally adjusted, and the increase in registered job vacancies, seasonally adjusted, resulted in the number of vacancies exceeding the number of registered unemployed during March, April and May of 1973-74. But by the end of the year, the number of registered vacancies had declined to 77,385 in June to be less than the number of registered unemployed of 87,541.

The 1973-74 rate of growth in wages, salaries and supplements of 22.6 per cent was nearly double the 1972-73 growth of 11.7 per cent. The rise in average employment (in male-unit terms) of about 5 per cent was also nearly double the growth of the previous year. Average earnings grew by about 16.5 per cent in 1973-74 compared with about 9 per cent in 1972-73.

Gross national expenditure increased by 25 per cent (11.6 per cent at constant prices) during 1973-74 compared with an increase of 9.9 per cent (3.8 per cent at constant prices) in the previous year. This faster rate of growth was due to a very large increase in stocks and a strong recovery in the level of private gross fixed capital expenditure (up 9.5 per cent at constant prices). Government final consumption expenditure rose by 7 per cent at constant prices (5 per cent in 1972-73) with strong increases in education and health and welfare spending. Private final consumption expenditure increased by 5.2 per cent at constant prices, compared with 6 per cent in 1972-73. There was no growth (at constant prices) in public gross fixed capital expenditure.

In 1973-74 exports of goods and services increased by 13.5 per cent (decreased by 4.6 per cent at constant prices) while imports of goods and services increased by 43.8 per cent (30.4 per cent at constant prices). The surplus on goods and services was \$185 million, compared with \$1,588 million in 1972-73 and the balance on current transactions resulted in net borrowing from overseas of \$359 million, compared with a net lending to overseas of \$932 million in 1972-73.

The increase of 13 per cent in the value of exports of goods was largely due to increased prices. Prices for rural products averaged at about 30 per cent higher than for 1972-73, although wool and meat export prices at June 1974 were about 40 per cent and 21 per cent, respectively, below those of June 1973. The volume of rural exports fell by almost 20 per cent. Wheat exports nearly doubled in value due to the substantially higher prices. The value of non-rural exports of goods rose by almost 20 per cent of which about half was due to price rises. Substantial increases were recorded in the value of exports of ores and concentrates, coal and petroleum products and manufactured metals. Exports of services rose by 16 per cent with transportation and travel each rising by about 25 per cent.

Imports of goods in 1973-74 increased by 51 per cent. Substantial increases were recorded in the value of imports of petroleum and petroleum products, textiles, chemicals and machinery and transport equipment. Imports of services increased by 26 per cent with transportation rising by 38 per cent, reflecting higher freight charges and the larger volume of goods imported.

The currency appreciation and the exchange control measures of 1972-73 continued to discourage capital inflow in 1973-74. In September 1973 the Australian dollar was further appreciated by 5 per cent as a measure to curb rising prices. The tight liquidity and the increases in domestic interest rates acted to make the 25 per cent deposit requirement on foreign borrowings for terms of more than two years less of a deterrent and the deposit requirement was increased to a third from 26 October 1973. This decision was reversed in June 1974 as domestic funds became very scarce.

During the first half of 1973-74 there was a net apparent capital outflow (excluding undistributed income) of \$267 million, compared with an inflow of \$854 million in the same period of 1972-73. The second half saw a net apparent capital outflow of \$53 million, compared with an outflow of \$802 million in the corresponding period of 1972-73. For the whole year, net apparent capital outflow was \$319 million, compared with inflows of \$52 million in 1972-73 and \$1,598 million in 1971-72.

During 1973-74 the major mineral discoveries made were significant reserves of bauxite on Cape Bougainville, W.A., sub-bituminous coal in the Galilee Basin of Queensland, and medium grade steaming coal near Coober Pedy, S.A. Much of the activity of the mining industry during 1973-74 was directed towards the development and expansion of processing capacity. The installed capacity at the alumina refinery at Gladstone, Queensland, was increased to 2 million tonnes per year and at the Gove alumina refinery the second stage of 500,000 tonnes annual capacity was commissioned. Expansion of the copper refinery at Townsville, Queensland, to 150,000 tonnes per year was completed and a flash smelter at Tennant Creek, N.T., was commissioned. The electrolytic zinc refinery at Risdon, Tasmania, began operating a new residue treatment plant as part of new expansions being completed. Refined zinc capacity at Cockle Creek, N.S.W., was increased and an ilmenite beneficiation plant commenced commercial production at Cape, W.A.

Increased demands on domestic sources of finance, as overseas sources became less attractive, plus the growth in private capital spending resulted in vigorous competition for funds in 1973-74. This demand increased further during January and February as the first payment under the new system of collecting company tax by quarterly instalments became due. New money raised on the domestic market increased rapidly and by the June quarter funds were extremely scarce and interest rates increased rapidly. As a result interest rates on short-term claims exceeded those for long-term claims in most markets during the June quarter.

During 1973-74 deposits with financial institutions increased but at a slower rate than in the previous year. Private non-bank holdings of trading bank deposits rose by 18 per cent during 1973-74, compared with 32 per cent in 1972-73. Most significant was the increase in certificates of deposit (approximately six-fold) after the ceiling of 6.5 per cent on their interest rates was removed. Average yields on short-term certificates of deposit rose from about 6 per cent in July to almost 20 per cent in May, before averaging at 16 per cent for June. The level of other private non-bank holdings of trading bank deposits declined by 3 per cent. Trading bank liquidity was already low at the beginning of 1973-74 and, except for a rise from November to January, declined even further during the year.

Saving bank deposits rose by 9 per cent during 1973-74, less than half the rate of growth of the previous year. Holdings of notes and coins by the public rose by more than 18 per cent and, when combined with the increases in bank deposits, resulted in an aggregate rise of about 14 per cent in the volume of money during 1973-74, compared with an increase of 26 per cent in 1972-73. Paid-up share capital of permanent building societies in June 1974 was 19 per cent higher than in the previous June. The value of loans advanced by the societies during 1973-74 was 28 per cent below that for 1972-73. Finance companies continued to grow during 1973-74. Balances outstanding grew rapidly for all categories except instalment credit for retail sales.

Share prices during 1973-74 showed a considerable decline to end the year at the lowest level for more than six years. The Sydney index of ordinary share prices fell by 23 per cent during the first half of the year and, after increasing by 19 per cent to March, decreased rapidly by 14 per cent to end the year 29 per cent below the previous June level. Most significant was the 42 per cent fall during the year in the index for hire purchase and investment companies.

During the year, several new instrumentalities were established to administer the Australian Government's policies on prices and industry assistance. The Prices Justification Tribunal came into operation on 1 August 1973 and had its first public inquiry, into steel prices, on 20 August 1973. Other major determinations involved prices of paper and paper products, motor vehicles and petroleum and petroleum products. The role of the Tariff Board, renamed the Industries Assistance Commission, was expanded to advise on assistance to all sectors of industry and to cover all forms of proposed government aid to industry (except temporary protection). Major tariff decisions made during 1973-74 were a general 25 per cent reduction in tariff rates in July, a lowering of tariff rates to 35 per cent on consumer electronic equipment and components in November and a reduction in tariff rates on most domestic electrical appliances to 25 per cent in January. The Government also established a tribunal to examine and report on requests for assistance by domestic industries adversely affected by tariff reductions.

Flood and wind caused considerable damage and disruption to the economy during the year along the eastern seaboard. During January almost the whole north-eastern quarter of Australia was subjected to some measure of flooding. Further flooding occurred in southern Queensland and northern N.S.W. during March, in Victoria in the middle of May and on the central coast of N.S.W. at the end of May.

1973-74

- 1 *July*. Special Bonds, Series '2A' issued at par with interest rates ranging from 5.8 to 6.3 per cent. An amount of \$7 million was raised for the redemption of Series 'A' to 'Z'.
- 2 *July*. It was announced that the Federal Government would provide \$218 million to the States for low-cost housing in 1973-74.
- 3 *July*. It was announced that the import of manufactured goods from developing countries would be assisted by a lowering of duty to 10 per cent below general tariff rates.
July. Building workers in all States stopped work in support of a claim for long service leave in the industry.
July-August. Steel workers in New South Wales stopped work in support of a wage claim.
- 9 *July*. Special Bonds, Series '2B' issued at par with interest rates ranging from 6.2 to 6.8 per cent. An amount of \$39 million was raised for the redemption of Series 'A' to 'Z'.
- 12 *July*. Australian Government cash loan issued at par with interest at 6.2 per cent for 2 years 7 months, 6.6 per cent for 7 years 7 months, and 7 per cent for 18 years. An amount of \$379 million was raised. A conversion offer was made on the same terms as the cash loan for \$301 million maturing on 15 July. An amount of \$272 million was converted.
- 17 *July*. Motor vehicle builders in Victoria held a stoppage over a wage claim.

- 18 *July*. The Australian Government cut all tariffs by 25 per cent and announced that assistance would be provided for firms and employees affected by the tariff cut.
- 23 *July*. The Australian Government announced that it would abolish the annual \$27 million subsidy to dairy farmers over the next two years and would boost the \$25 million dairy reconstruction scheme.
- 24 *July*. Australia signed a three-year Trade Agreement with the Peoples' Republic of China. Trade would take place under Most Favoured Nation conditions.
- 1 *August*. A conversion offer of Special Bonds, Series '2B' was made for \$23 million Special Bonds Series 'M' maturing on 1 August 1973. An amount of \$14 million was converted. The Prices Justification Act came into operation.
- 2 *August*. The Reserve Bank increased the Statutory reserve deposits of trading banks by 1 per cent.
- 9 *August*. Police in Victoria were awarded a 15 per cent pay rise.
- 19 *August*. Qantas received Government approval to purchase two more Boeing 747B aircraft.
- 21 *August*. The Australian Government Budget for 1973-74 introduced into the House of Representatives. The Budget provided for an estimated outlay of \$12,168 million and estimated receipts of \$11,481 million in the year 1973-74. (Details of the 1974-75 Budget as well as the actual budget results for 1973-74 are shown in the Appendix). In 1972-73 receipts of the Australian Government were \$9,521 million and outlay amounted to \$10,230 million. The main components of receipts were: income taxes on persons \$4,085 million; indirect taxes \$2,634 million; income taxes on companies \$1,634 million; interest, rent and dividends, etc. \$951 million; and other direct taxes, fees, fines, etc. \$66 million. The main components of outlay were: social security and welfare \$2,100 million; defence \$1,234 million; health \$783 million; general public services \$761 million; transport and communication \$751 million; industry assistance \$443 million; and education \$439 million.
- 23 *August*. Third division officers of the Australian Public Service received a 12 per cent salary increase and second division officers a 16 per cent increase.
- 27 *August*. Queensland basic wage rates, etc. were increased (*see page 285*).
- 28 *August*. The Reserve Bank increased the statutory reserve deposits of trading banks a further 1 per cent. The call-up of 2 August and 28 August amounted to about \$207 million.
- 30 *August*. 1973-74 South Australian Budget introduced, providing for a deficit of \$11.3 million; it was estimated that revenue would be \$611.6 million and expenditure \$622.9 million. In 1972-73 revenue amounted to \$520.9 million and expenditure to \$524.8 million leaving a deficit of \$3.9 million.
- 6 *September*. 1973-74 Tasmanian Budget introduced providing for a deficit of \$4.5 million. It was estimated that revenue would be \$198.1 million and expenditure \$202.6 million. In 1972-73 revenue amounted to \$181.9 million and expenditure to \$186.0 million, resulting in a deficit of \$4.1 million.
- 12 *September*. 1973-74 Victorian Budget introduced, providing for total receipts and expenditure of \$1,549.0 million. Revenues for financing loan programs were estimated at \$245.0 million (including Australian Government capital grant payments of \$87.2 million) and loan expenditure was estimated to total \$229.3 million.
Australian Government appointed a Royal Commission to inquire into all aspects of refining, marketing and pricing in Australia of all types of petroleum and petroleum products.
- 14 *September*. Storemen and packers in Victoria stopped work in support of a wage claim.
- 17 *September*. The basic wage for adult females in Western Australia was increased (*see page 286*).
- 25 *September*. 1973-74 New South Wales Budget introduced, providing for a deficit of \$6.9 million. It was estimated that the receipts and payments would be \$1,543.3 million and \$1,550.3 million respectively. In 1972-73 the surplus was \$3.2 million while receipts and payments amounted to \$1,339.3 million and \$1,336.1 million respectively.
- 27 *September*. 1973-74 Queensland Budget introduced. It was estimated that revenue would be \$803.7 million and expenditure \$808.0 million leaving a deficit of \$4.3 million. In 1972-73 revenue amounted to \$704.1 million and expenditure to \$702.9 million leaving a surplus of \$1.2 million.
- 29 *September*. Interest rates charged by Savings Banks and Building Societies on housing loans increased by approximately 1 per cent. Interest rates on Savings Bank deposits rose by 2 per cent.
- 30 *September*. Government export incentives for meat ended.

- 2 *October*. The Australian Government announced it will take control of all oil and gas produced from north-west shelf under the National Pipeline Authority Act.
- 4 *October*. The Western Australian Budget for 1973-74 introduced. It was estimated that revenue would be \$546.4 million and expenditure \$553.4 million leaving a deficit of \$6.9 million. In 1972-73 revenue amounted to \$473.8 million and expenditure to \$477.3 million leaving a deficit of \$3.5 million.
Official long-term bond rate increased from 7 to a record 8.5 per cent by Federal Government.
- 5 *October*. Special Bonds, Series '2C' issued at par with interest rates ranging from 8.0 to 8.4 per cent. An amount of \$408 million was raised of which \$310 million was for the redemption of Series 'A' to 'Z'.
The Medical Fees Tribunal in its first decision awarded an increase in general practitioners fees of approximately 20 per cent.
- 11 *October*. Australian Government cash loan with interest at 8.0 per cent for 1 year 4 months issued at par, 8.2 per cent for 3 years 7 months issued at par, 8.3 per cent for 10 years issued at 99.70 per cent, and 8.5 per cent for 20 years issued at par. An amount of \$267 million was raised. A conversion offer was made on the same terms as the cash loan for \$150 million maturing on 15 October. An amount of \$89 million was converted.
- 17 *October*. Builders labourers stopped work in protest against demolition work in the Sydney metropolitan area.
- 18 *October*. Fourth division officers in the Australian Public Service received a 14 per cent salary increase.
- 20 *October*. Domestic airline fares were increased 11.5 per cent.
- 25 *October*. The Treasurer announced an increase from 25 per cent to 33.33 per cent in the variable deposit requirement on borrowings from abroad.
- 26 *October*. Federal Government ordered the sale of more than \$129 million worth of wheat to Egypt.
- 3 *November*. Long-term sugar agreement negotiated with Peoples' Republic of China—about 300,000 tonnes per year for three to five years beginning in 1975.
- 9 *November*. Employees covered by Queensland State awards and industrial agreements were granted four weeks annual leave and a 17½ per cent annual leave loading (*see* page 286).
- 19 *November*. The Government set a new rate of 35 per cent duty on consumer electronic equipment and components following a Tariff Board Review.
- 21 *November*. Clerical employees in New South Wales received wage increases of between \$3.90 and \$11.50 a week.
- 26 *November*. Queensland basic wage rates, etc. were increased (*see* page 285).
- 27 *November*. Teachers in New South Wales stopped work in support of a claim for higher salaries.
- 28 *November*. Following a referendum, graziers' voted to continue the ban on the export of merino rams and the Australian Government will ban all exports except to New Zealand.
- 8 *December*. Both referendums in which the Australian Government sought to control prices and incomes were defeated in every State.
- 11 *December*. The Industries Assistance Commission began operating.
- 17 *December*. Clerks in South Australia received pay increases of \$6.80 and \$7.50 a week.
- 1 *January*. Storemen and packers in New South Wales received an \$11 a week increase.
- 2 *January*. New South Wales ironworkers were granted pay increases of between \$15 and \$30 a week.
- 13 *January*. Major oil companies agreed to make sufficient bunkering fuel available to ensure Australian wheat exports are shipped.
- 14 *January*. The United States Tariff Commission ruled that Broken Hill Associated Smelters was guilty of dumping primary lead on the American market.
- 23 *January*. A reduction in the tariff rates on domestic appliances, heating and cooling equipment was announced by the Prime Minister. The duty reductions would be phased in over two years and firms and employees disadvantaged by the proposed tariff changes would be eligible for assistance.
- 28 *January*. The Australian Associated Stock Exchanges introduced a new listing requirement which requires companies to notify the Stock Exchange before going ahead with a business deal.

- 12 *February*. Australian Government cash loan with interest of 8.1 per cent for 2 years 5 months issued at par, 8.3 per cent for 9 years 8 months issued at 99.70 per cent, and 8.5 per cent for 19 years 8 months issued at par. An amount of \$511 million was raised. A conversion offer was made on the same terms as the cash loan for \$252 million maturing on 15 February. An amount of \$188 million was converted.
- 27 *February*. Metal workers in all States stopped work in support of award negotiations. Further stoppages occurred in March and the unions accepted the Arbitration Commission's proposals in early April.
- 1 *March*. A conversion offer of Special Bonds, Series '2C' was made for \$61 million Special Bonds Series 'N' maturing on 1 March 1974. An amount of \$39 million was converted.
- 1 *March-April*. New South Wales coal miners stopped work in support of a wage claim.
- 5 *March*. Tasmanian zinc workers stopped work in support of a claim for higher wages.
- 11 *March*. The Queensland basic wage, etc. was increased (*see* page 285).
- 12 *March*. New South Wales building workers stopped work in support of a claim for higher wages.
- 20 *March-April-May*. Victorian plumbers stopped work in support of increased wages.
- 21 *March*. Coal mining employees in New South Wales, Queensland and Western Australia received a pay increase of \$25 a week.
- 25 *March*. New South Wales transport workers received an increase of \$11 a week.
- 27 *March*. It was announced following negotiations with the Australian Government that the Japanese steel mills have agreed to an increase in the price of New South Wales coking coal to \$19.00 per tonne. Increases in the prices of Queensland coal were announced in June.
- 1 *April*. Employees in the clothing trade and textile industry received an increase of \$6 a week. Bank officers were granted a salary increase of 15 per cent.
- 5 *April*. Architects and engineers in New South Wales and Victoria held a stoppage in support of a wage claim.
- 8 *April*. Metal trades employees were awarded a \$15 a week wage increase, four weeks annual leave and a 17½ per cent loading on holiday pay. These benefits were also awarded to workers in similar occupations in the Federal and State awards.
- 19 *April-May*. Victorian hotel employees held a stoppage in support of increased wages.
April-May. Building workers in all States were awarded a \$15 a week wage rise, four weeks annual leave and a 17½ per cent holiday loading.
- 23 *April-May*. Building workers in all States stopped work over a wages claim, award negotiations and uniform standards for the building industry.
- 28 *April*. Newspaper printing employees in Victoria received a pay increase of \$23 a week.
- 1 *May*. New awards in the vehicle industry came into operation, granting four weeks annual leave, a holiday loading of 17½ per cent and wage increases of between \$18 and \$30 a week. Motor vehicles builders in South Australia stopped work over wage claims.
- 6 *May*. Waterside workers were granted \$22.50 a week to operate from 6 May, and a 25 per cent holiday pay loading.
- 15 *May*. A special Australian Government cash loan with interest at 8.1 per cent for 2 years 2 months issued at par, 8.3 per cent for 9 years 5 months issued at 99.70 per cent, and 8.5 per cent for 19 years 5 months issued at par. An amount of \$260 million was raised.
- 23 *May*. Shop assistants in New South Wales and the Australian Capital Territory stopped work in support of a claim for higher wages. Shop employees in New South Wales were awarded wage increases of between \$20.60 and \$24 a week for adult males and between \$26.80 and \$30.50 for adult females. The increases remove the differential between male and female rates. The Australian Conciliation and Arbitration Commission increased total wages and the minimum wage (*see* page 284).
- 27 *May*. Increases in the Queensland basic wage, etc. were granted by the Industrial Commission (*see* page 285).

- 28 *May*. New South Wales construction workers held a stoppage in support of a wage claim.
June. Postal workers in New South Wales, Victoria and Western Australia stopped work over a claim for higher wages.
- 10 *June*. Clerks in South Australia received a pay increase of \$6.50 a week for adult males and \$11.90 and \$12.50 a week for adult females.
Graphic arts employees in all States received a wage increase of \$20 a week.
- 12 *June*. Tradesmen and non-tradesmen employed under the Aircraft Industry (Domestic Airlines) Award received pay increases of \$19 and \$16.50 a week respectively, to operate from 1 May 1974 with further increases in June and July 1974.
- 14 *June*. Clerks in Victoria received a pay increase of \$16.90 a week for adult males and \$24.45 a week for adult females.
- 21 *June*. An interim salary increase of \$16 a week to apply from 27 June 1974 was granted to third division and fourth division employees in the Australian Public Service.
- 25 *June*. Nurses in New South Wales received pay increases of between 35 and 60 per cent.
New South Wales public servants in the administrative and clerical divisions were granted a \$16 a week salary rise.

APPENDIX

Some recent information which has come to hand since the various chapters were sent to press is given in summarised form in the following pages, but for later statistics on the subjects dealt with in chapters reference should in general be made to other publications issued by this Bureau, e.g. the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, the *Digest of Current Economic Statistics*, and the various mimeographed statements issued on particular subjects.

CHAPTER 3. GENERAL GOVERNMENT

Parliamentary government

SECOND WHITLAM MINISTRY—10 FEBRUARY 1975

(The State in which each Minister's electorate is situated is shown in parentheses. All Ministers are members of the Australian Labor Party and all are in the Cabinet.)

Prime Minister—

THE HON. E. G. WHITLAM, Q.C., M.P.
(N.S.W.)

Deputy Prime Minister and Treasurer—

THE HON. J. F. CAIRNS, M.P. (Vic.)

Minister for Minerals and Energy—

THE HON. R. F. X. CONNOR, M.P. (N.S.W.)

Minister for Social Security—

THE HON. W. G. HAYDEN, M.P. (Qld)

*Leader of the Government in the Senate and
Minister for Agriculture—*

SENATOR THE HON. K. S. WRIEDT (Tas.)

Minister for Foreign Affairs—

SENATOR THE HON. D. R. WILLESEE (W.A.)

Minister for Overseas Trade—

THE HON. F. CREAM, M.P. (Vic.)

*Minister for Services and Property and Leader
of the House—*

THE HON. F. M. DALY, M.P. (N.S.W.)

*Minister for the Media and Manager of
Government Business in the Senate—*

SENATOR THE HON. D. MCCLELLAND (N.S.W.)

Minister for Defence—

THE HON. L. H. BARNARD, M.P. (Tas.)

*Minister for Northern Development and Minister
for the Northern Territory—*

THE HON. R. A. PATTERSON, M.P. (Qld)

Minister for Labor and Immigration—

THE HON. C. R. CAMERON, M.P. (S.A.)

Minister for Education—

THE HON. K. E. BEAZLEY, M.P. (W.A.)

*Special Minister of State and Minister Assisting
the Prime Minister in Matters Relating to the
Public Service*

THE HON. L. F. BOWEN, M.P. (N.S.W.)

Minister for Repatriation and Compensation—

SENATOR THE HON. J. M. WHEELDON

Minister for Urban and Regional Development—

THE HON. T. UREN, M.P. (N.S.W.)

Postmaster-General—

SENATOR THE HON. R. BISHOP (S.A.)

Minister for Housing and Construction—

THE HON. L. R. JOHNSON, M.P. (N.S.W.)

Minister for Transport—

THE HON. C. K. JONES, M.P. (N.S.W.)

Minister for Health—

THE HON. D. N. EVERINGHAM, M.P. (Qld)

*Attorney-General and Minister for Customs and
Excise—*

THE HON. K. E. ENDERBY, Q.C., M.P. (A.C.T.)

Minister for Manufacturing Industry—

SENATOR THE HON. J. R. MCCLELLAND
(N.S.W.)

Minister for the Capital Territory—

THE HON. G. M. BRYANT, E.D., M.P. (Vic.)

Minister for Science and Minister Assisting the Minister for Foreign Affairs in matters relating to Papua New Guinea and Minister Assisting the Minister for Defence—

THE HON. W. L. MORRISON, M.P. (N.S.W.)

Minister for the Environment and Conservation—

THE HON. M. H. CASS, M.P. (Vic.)

Minister for Tourism and Recreation, Vice-President of the Executive Council and Minister Assisting the Treasurer—

THE HON. F. E. STEWART, M.P. (N.S.W.)

Minister for Aboriginal Affairs—

SENATOR THE HON. J. L. CAVANAGH (S.A.)

STATE PREMIERS, page 83

New South Wales—The Hon. T. L. Lewis, M.L.A. (L.P.)

Tasmania—The Hon. W. A. Neilson, M.H.A. (A.L.P.)

LEADERS OF THE OPPOSITION, page 83

Federal—The Hon. J. M. Fraser, M.P. (L.P.)

THE SENATE, page 87

Consequent on the resignation of Senator the Hon. L. K. Murphy (A.L.P.), Senator C. E. Bunton (Ind.) was appointed to fill a casual vacancy.

THE HOUSE OF REPRESENTATIVES, page 88

Speaker: The Hon. G. G. D. Scholes, M.P. (A.L.P.)

Chairman of Committees: J. M. Berinson, M.P. (A.L.P.)

Leader of the Opposition: The Hon. J. M. Fraser, M.P. (L.P.)

CHAPTER 10. LABOUR, WAGES AND PRICES**Determination of wage rates in Australia**

The Australian Conciliation and Arbitration Commission as a result of the 1975 National Wage Case decided to adjust all ordinary award rates of pay by 3.6 per cent to compensate for the increase in the Consumer Price Index for the March 1975 quarter. It was also decided to increase the minimum wage for adult males by \$4 a week following an \$8 a week increase in January 1975. The latest increases would operate from the beginning of the first pay period commencing on or after 15 May 1975. The Commission stated it would meet each quarter following the publication of the latest Consumer Price Index figures and adjust award wages in accordance with the movement in the six-capitals Consumer Price Index numbers unless it can be persuaded to the contrary by those opposing such adjustment.

CHAPTER 18. PUBLIC FINANCE**Federal Budget 1974-75**

(see page 1144 for particulars of the 1973-74 Budget)

The 1974-75 Budget of the Australian Government was presented in national accounts form, with outlays classified on a functional basis. A functional classification is intended to bring together outlays with similar objectives or purposes to reveal more fully the broad purposes of public sector spending, to indicate the share of total resources available to public authorities being devoted to particular avenues of expenditure, and to provide a framework for developing assessments of the effectiveness of outlays in meeting government policy objectives. Taken together with the presentation on a national accounts basis the functional classification also facilitates assessment of the economic impact of the identified programs of expenditure.

The 1974-75 Budget was framed in an unusually difficult economic environment. Unemployment and prices were rising and the balance of payments deteriorating. The policy options chosen in framing the Budget reflected Government objectives, both as regards social and economic policies, and the Government's judgment as to how the overall economic situation would develop. Budget outlays were estimated to increase by 32.4 per cent in 1974-75, considerably faster than the increase of 20.2 per cent in 1973-74. After taking account of the net effect of the revenue measures proposed, budget receipts were estimated to increase by 30.8 per cent in 1974-75. The estimated overall deficit of \$570 million was about \$278 million greater than in the previous year—the estimated domestic surplus of \$23 million was smaller, by about \$189 million, than in 1973-74. The estimated net outcome was heavily influenced by the effect of inflation on revenue and comparisons with past deficits have limited significance for purposes of economic analysis. Details of estimated Budget outlay and receipts are shown in the accompanying table.

Outlay

On the outlay side, notable aspects were:

The continued very large rise in outlay in the function *Urban and Regional Development n.e.c. and the Environment*—this reflects, in the main, very sizeable increases in the allocations for the growth centres, Land Commissions and sewerage programs.

A very large increase of \$675 million, or 78 per cent, in outlays on *Education* reflecting, among other things, the full-year effects of the undertaking by the Australian Government, as from 1 January 1974, of full financial responsibility for universities and colleges of advanced education, increased allocations for technical and further education, and the provision of greatly increased funds to the Schools Commission and for the child care program.

The increase of \$952 million, or 38 per cent, in outlays on *Social Security and Welfare* following the very large increase in 1973-74.

The increase of \$284 million, or 30 per cent, on *Health*, the major new initiative being the provision of funds to the States for hospital development.

The increase of \$392 million, or 25 per cent, in the *Economic Services* function, which covers a wide range of programs including transport and communications, industry assistance and development, and labour and employment—this increase reflects provisions of \$50 million for the Petroleum and Minerals Authority, \$75 million for the continuation of the activities of the Pipeline Authority, \$67 million for urban public transport initiatives, and increased provisions for roads, shipping and airlines.

Receipts

On the basis of *existing* rates of taxes and other charges, it was estimated that total receipts in 1974-75 would amount to \$15,896 million, an increase of 32.4 per cent on actual receipts in 1973-74.

The general revenue measures announced in the Budget Speech are estimated to reduce receipts in 1974-75 by about \$237 million below the revenue which would have been derived at pre-existing rates of taxation and charges. An increase in the levy on wool will bring in an estimated \$45 million in 1974-75. Overall, total receipts were estimated to amount to \$15,704 million, an increase of 30.8 per cent on actual receipts in 1973-74. The estimate of total taxation revenue in 1974-75 is \$14,518 million, 32.7 per cent more than the 1973-74 figure.

BUDGET RECEIPTS AND OUTLAY
(\$ million)

	1973-74	Estimate 1974-75
Outlay—		
Defence	1,334	1,499
Education	860	1,535
Health	948	1,232
Social security and welfare	2,489	3,442
Housing and community amenities, n.e.c.	338	401
Urban regional development, n.e.c. and the environment	145	394
Culture and recreation	158	228
Economic services—		
Transport and communication	869	1,120
Water supply and electricity	46	51
Industry assistance and development	484	573
Labour and employment	115	150
Other economic services	48	59
Total economic services	1,562	1,954
General public services	987	1,183
Not allocated to function(a)	3,475	4,407
Total outlay	12,295	16,274
<i>of which—</i>		
Net current expenditure on goods and services	2,767	3,480
Gross capital formation	283	412
Transfer payments and net advances	9,245	12,382
Receipts—		
Taxation—		
Indirect taxes	3,249	3,867
Income taxes on companies	2,033	2,566
Income taxes on persons—P.A.Y.E.	4,238	6,189
Other	1,252	1,777
Estate and gift duties	76	77
Other direct taxes, fees, fines, etc.	68	23
Unfunded employee retirement contributions	27	26
Less remissions	6	7
Total taxation	10,938	14,518
Other receipts—		
Interest, rent and dividends, etc.	1,031	1,144
Gross income of public enterprises	11	4
Sales of land and buildings	22	37
Total other receipts	1,065	1,185
Total receipts	12,002	15,704

(a) Includes payments to States n.e.c.

CHAPTER 30. THE TERRITORIES OF AUSTRALIA

THE NORTHERN TERRITORY

The City of Darwin was devastated by Cyclone Tracy on 24/25 December 1974 and mass evacuation of the population took place.

LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES

This list refers to special articles and other more or less important miscellaneous matter which have appeared in previous issues of the Year Book but which are not included, or are included in abbreviated form only, in the present issue.

The figures below indicate, respectively, the number and page of the Year Book to which reference is made. In cases where matter was published in more than one previous issue, the volume and page for the last issue containing such matter are given. For possible revisions, however, issues immediately following the one referred to should also be consulted.

Aboriginal population, 17, 951

Aborigines

Australian, former numbers and distribution of, 23, 687
of Australia, 3, 158

Administrative government, 12, 924

Advisory Council of Science and Industry, 11, 1195

Aeronautical telecommunications, 44, 422

Agricultural and stock departments (conspectus), 14, 1180

Agricultural colleges and experimental farms, 11, 392

Air Defence

Development, 18, 610

Operations since the 1939-45 War, 58, 92

Anatomy, Australian Institute of, 32, 919

Animal and Vegetable Diseases and Pests Acts (conspectus), 14, 1066

Apprenticeship legislation, 16, 602; 23, 767

Artesian and sub-artesian basins, known (map) 48, 273

Australian books

1961, select list of, 48, 1166

1966, select list of, 53, 1231

Australian Capital Territory (*see* 'Canberra', 'Federal Capital' and 'Seat of Government')
(map), 39, 367

Barley for grain: distribution of acreage, 1962-63 (map), 50, 1014

Basic wage judgement, 1937, 30, 564

Board of Trade Advisory Committee, Report on Commercial Intelligence, 1, 518

Building stones

Australia, 9, 446

Queensland, 12, 89

Canberra

fifty years of development, 49, 122

past and present (*see also* 'Federal Capital' and 'Seat of Government'), 24, 454

Cancer in Australia, 1881 to 1910, 5, 230

Cattle: distribution, March 1963* (maps), 50, 1050, 1082

Census and Statistics

Act of 1905 (text), 1, 8

creation of Commonwealth Bureau of, 1, 11

Census

of Papua and New Guinea, 1966, 53, 141; 55, 1164

The, 53, 163

Censuses, early, 15, 1083

Chemistry, South Australian Department of, 14, 1064

Chinese in Australia, 18, 951

Climate, changes of, 7, 56

Climatology, bulletins of, 34, 11

Clothing and food rationing (1939-45 War), 36, 1084

Coal mining, history of, 3, 515

Coast-line of the Commonwealth of Australia, features, 1, 60

* *Also*—1955, No. 43, pages 909-10; 1948, No. 39, pages 905-6; 1938-39, No. 34, pages 453-4; 1924-25, No. 22, page 660.

Coinage

- Australian Mints, **52**, 675
- Decimal, **52**, 671
- Pre-decimal, **52**, 671
- pre-federation, **51**, 812

Commercial and Industrial Bureau of the Board of Trade, **17**, 1037

Commonwealth

- Bank, **11**, 815
- Savings Bank, **10**, 789
- Compulsory military training, **12**, 1001
- Constitution Acts (conspectus), **13**, 928
- Contingents, Australian–New Zealand and Sudan Campaigns, South African, China and 1914–18 Wars, **12**, 1019
- Control of prices during and since the 1939–45 War, **37**, 458
- Coolgardie water scheme, **6**, 576
- Co-operation of producers and of consumers in Australia, **17**, 581
- Copper-mining, history of, **5**, 498
- Cost of living inquiry, 1910–11, **5**, 1167
- Country Roads Board, Victoria, **15**, 526
- Currency, decimal (*see* Decimal currency)
- Currency, international, **13**, 1146
- Customs Tariff, 1914, **11**, 603

Daylight saving, **36**, 1119

Decimal coinage, **15**, 719, **52**, 671

Decimal currency, **51**, 809; **52**, 671

Decimal Currency Committee, 1959, report, summary of conclusions and recommendations, **49**, 835

Defence legislation, special (1914–18 War), **15**, 930

Designs, **12**, 1174

Development of telecommunications in Australia, **59**, 378

Diphtheria, **16**, 1031

Disease, transmission by mosquitoes, **22**, 506

Disposals Commission, Commonwealth, **39**, 1289

Droughts in Australia, **45**, 51; **54**, 995

Education, primary—early history, **2**, 880

Electricity generation (maps), **39**, 1171

Electric power generation and distribution, **39**, 1149

Enemy Contracts Annulment Act 1915 (text), **8**, 1095

Enemy patents and trade marks, **13**, 1104

Eucalypts, Australian, chemical products of, **10**, 92

Eucalyptus timbers, Australian, **10**, 85

Exploration of Australia

account, **2**, 20

maps, **8**, 35

Factories and Shops Acts and Regulations (conspectus), **16**, 540

Fauna of Australia, **2**, 111

Federal

Capital City—map and designs for layout (*see also* ‘Canberra’ and ‘Seat of Government’), **5**, 1139

Capital Territory—structure and scenery of (*see also* ‘Canberra’ and ‘Seat of Government’), **22**, 627

movement in Australia, **1**, 17

Ferries in Australia, **25**, 199

Financial Agreement between Commonwealth and States (full text)

as affected by further agreements to 3 July 1934, **31**, 21

as affected by further agreements to 15 November 1944, **37**, 685

summary of main provisions, **50**, 952

Financial crisis (1929), **30**, 983

Fisheries, Commonwealth Department of, **14**, 333

Flora of Australia, **2**, 117

Fodder plants, native Australian, **6**, 1190

Food

and drugs inspection and sale, **12**, 1053

control, Commonwealth (1939–45 War), **35**, 921

Forest

areas, characteristics of State, 6, 446
 fire protection, 55, 965

Forestry in Australia, 19, 701

Friendly Societies Acts (conspectus), 10, 800

Geological

history of Australia, salient features, 7, 56

Map of Australia, 12, 51

Geology of Australia, 2, 78

German place names, changing of, 19, 50

Glacial action in Australia, past, 13, 1133

Gold

discovery of, 4, 492

modes of occurrence and remarkable masses, 4, 500

Goulburn River Gravitation Scheme (map), 13, 561

Grasses and saltbushes of Australia, 9, 84

Health legislation and administration, public, 22, 493

Henderson, report by Sir Reginald (Naval Matters), 6, 1067

History of Australia, early, 1, 44

Housing Division, Commonwealth, 38, 1234

Hydrology of Australia, 2, 67

Income taxes in Australia, 35, 926

Industrial hygiene in Australia, 18, 522

Infant mortality, Australia 1881-1910, rates of, 5, 227

Influenza epidemic of 1918-19, 13, 1128

Institute of Tropical Medicine, 15, 1010

Integrated Economic Censuses, Australia, 1968-69, 56, 1041

International Statistical Institute, 36th Session of the, 53, 1225

Interstate Commission, 13, 1123

Tariff Reports, 9, 1134

Iron-mining, History of, 3, 508

Islands off the Coast of Australia, 5, 51

Labour

and Industrial Branch, functions, 7, 992

laws relating to conditions of (conspectus), 16, 538

Lakes of Australia, 4, 59

Land

legislation and tenures (conspectus), 22, 133; 38, 111

settlement (war service) (*see* Settlement)

tenure, early history, 4, 235

League of Nations, 35, 920

Lend-Lease

and mutual aid between Australia and the United States, 36, 331

terms of settlement, 37, 393

Life assurance legislation, Australian (conspectus), 18, 1041

Lighthouses and lights, 2, 668

Loans to farmers, Government, 12, 383

Local option, and reduction of licences, 22, 1005

Manufactures *Encouragement Act* 1908-1912, 11, 451

Marine

and fresh water fisheries of Australia, 17, 752

War Risks Insurance Board, Commonwealth, 37, 604

Marketing of Australian Commodities, legislation, 36, 1102

Masculinity of population, 1796-1907, 2, 163

Metal Exchange, Australian, 12, 471

Meteorology, history of, in Australia, 3, 79

Military

cadets, anthropometrical measurements of, 11, 1203

system in Australia prior to Federation, 2, 1075

Mineral springs in Australia, 6, 55

Mining, aid to, 5, 527

- Mints, Australian, 52, 675
 Monetary and banking systems, Royal Commission on, summary of recommendations, 31, 1010
 Mortality
 Australian population, census of 1933, 29, 928
 rates of, methods of measuring, 12, 229
 Motor vehicles, census of
 31 December 1962, 50, 591
 31 December 1955, 44, 415
 Mountain systems of Australia, 3, 59
 Murray River Waters Conference, 7, 1059
 Mutual Aid between Canada and Australia, 36, 336
 termination, 37, 394
 National
 Health and pensions Insurance Scheme, 31, 968
 Service Training Scheme, 46, 1097
 Naval defence, historical outline, 2, 1084
 Navigation and shipping legislation, 17, 1053
 Northern Territory, historical sketch, 6, 1113
 Note issue
 Australian, 52, 677
 Decimal, 53, 678
 Statutory Reserve against, 55, 614
 Nutrition, Commonwealth Advisory Council on, 32, 222
 Oats for grain: distribution of acreage, 1962-63 (map), 50, 1015
 Oil exploration in Australia, 48, 1094
 Orographical map of Australia, 11, 49
 Orography of Australia, 3, 59
 Ottawa Conference, 26, 868
 Pacific Islanders in Australia, 19, 902
 Papua and New Guinea
 Census of, 1966, 53, 141
 Territory of (map), 39, 368
 Parliament of the Commonwealth of Australia, The, 49, 65
 Parliamentary and departmental reports and papers, 13, 4
 Pasture improvement, 49, 1001
 Patents, 12, 1170
 Penological methods, improvement of, 5, 922
 Petrol rationing (1939-45 War), 37, 178
 Pigs: distribution, March 1963* (map), 50, 1083
 Plains and peneplains of Australia, 12, 82
 Poisons, sale and custody of, 22, 496
 Population of Australia
 characteristics of the development of, and the effect of the 1914-18 War, 13, 1126
 increase of (graph), 35, 268
 influences affecting increase and distribution of, 22, 906
 sex distribution, 22, 910
 Ports of Australia, 3, 669
 Postal Services in early days, 5, 754
 Post-censal adjustment of population estimates, 1901-11, 6, 112
 Post-war control of shipping, and developments, 39, 147
 Preferential
 tariffs of the British Empire, 11, 601
 voting, 6, 1182
 Premiers'
 Conference
 1914, 7, 1055
 1915, 8, 1081
 1916, 11, 1191
 1916-17, 12, 1194
 1918, 14, 1061
 Plan, 30, 992

* Also—1955, No. 43, page 912; 1948, No. 39, page 908.

Publications

issued by the Commonwealth Statistician, 1906–20, **13**, 2
State, 1906–20, **13**, 6

Railways

non-conformity of gauge (*see also* Standardisation of Railway gauges, and Unification of gauge (railways)), **15**, 534
private, **14**, 611

Rainfall

from 1860, **15**, 53
wettest months of year (map), **17**, 69

Reconstruction Training Scheme, Commonwealth, **39**, 240

Referendums, Commonwealth

Communism, 1951, **40**, 56
Industry and commerce and essential Services, 1926; State Debts, 1928; Aviation and marketing, 1937, **31**, 67
Post-war Reconstruction and Democratic Rights, 1944, **36**, 61
Post-war Reconstruction and Democratic Rights, 1944; Social Services, Organised Marketing and Industrial Employment, 1946, **37**, 64
Post-war Reconstruction and Democratic Rights, 1944; Social Services, Organised Marketing and Industrial Employment, 1946; Rents and Prices, 1948, **38**, 83
Senate Elections, 1906; Finance and State Debts, 1910; Legislative Powers, 1911; Monopolies, 1911; Legislative Powers and Monopolies, 1913; Military Service, 1916; Military Service, 1917; Legislative Powers and Monopolies, 1919, **18**, 87
summary to 1937, **35**, 60
summary to 1951, **41**, 67

Registration of births, marriages and deaths, and legitimations Acts (conspectus), **13**, 212Rent control (1939–45 War), **37**, 1197Research in Australia, outline of, **52**, 645; **53**, 650Returned Soldiers' Settlement Acts, 1914–18 War (conspectus), **13**, 1018Rivers of Australia, **2**, 67School children in Australia and other countries (comparison), **5**, 1132Science and technology in Australia, **49**, 781Scientific societies, **22**, 454Seat of Government, **4**, 1134Seismology in Australia, **4**, 82

Settlement

in Australia, climatic factors influencing, **11**, 84
of returned service personnel: 1939–45 War, **37**, 113
soldiers, 1914–18 War, **18**, 187

Settlers, advances to (*see also* loans to farmers, government), **22**, 179Sheep: distribution, March 1963* (map), **50**, 1049Shipping and shipbuilding activities, Commonwealth Government, **22**, 256Snowy Mountains Scheme, **42**, 1103Soil conservation, **49**, 1003Soils of Australia, **52**, 873Softwood plantations, **59**, 880Standard times in Australia, **39**, 65Standardisation of railway gauges (*see also* Railways, non-conformity of gauge, and Unification of gauge (railways)), **53**, 440; **56**, 353Statistical Conference, 1906, **1**, 12Statisticians, Third Conference of British Commonwealth, 1951, **39**, 1320Statistics, development of State, **1**, 1Sugar bounties, **6**, 394Suicide in Australia, **5**, 240

Superannuation

Funds of the Parliaments of the Commonwealth and of the Australian States as at 30 June 1949 (conspectus), **38**, 91; **44**, 72
schemes, private, **44**, 776

Sydney Harbour colliery, **6**, 504Sylvicultural nurseries and plantations, **6**, 451,

* *Also*—1955, No. 43, page 911; 1948, No. 39, page 907; 1938–39, No. 34, page 452; 1924–25, No. 22, page 659.
14158/74—38

- Taxation Acts (conspectus), 14, 722**
Technical Training Scheme, war-time, Commonwealth, 39, 240
Tenure of land by aliens, 18, 190
Tides of Australia, 31, 972
Timbers, principal Australian, commercial uses, 6, 454
Tin-mining, history of, 3, 504
Topography of Australia, 20, 75
Trade
 marks, 12, 1173
 of the individual States, 4, 664
 prices, and house rents—control of, 22, 530
 unionism in Australia, historical development, 9, 937
Trans-Australia Railway, 11, 662
Travel and tourism, 52, 1158
Treasurer's Conference, 1914, 7, 1061
Tuberculosis in Australia, 1881 to 1910, 5, 230
Unification of gauge (railways) (see also Railways, non-conformity of gauge, and Standardisation of railway gauges), 14, 563
 conference, 15, 535
Universities, historical sketch, 2, 898
Volcanic action in Australia, past, 14, 46
Wages
 and conditions of employment (conspectus), 16, 567
 and Terms of Contract, Regulation, 9, 959
 real—international comparison of, 22, 542
War
 1914–18
 Australian troops (enlistments, casualties, decorations, etc.), 16, 628
 settlement of returned soldiers, 18, 187
 1939–45
 Account of part played by Australian Military Forces and chronology, 36, 1016
 Australian services (enlistments, casualties, decorations, etc.), 37, 1155
 Settlement of returned service personnel, 37, 113
War
 Gratuity Act
 1920, 15, 930
 1945–1947, 41, 999
 Precautions Act 1914–1916 and *War Precautions Regulations* 1915, 11, 1034
War-time
 control of shipping, 36, 121
 marketing of primary products, 36, 1105
 Technical Training Scheme, 39, 240
Water in Australia, the conservation and use of, 37, 1096
Water resources, Australian, some recent developments in the measurement of, 51, 228
Wealth, private, of Australia
 1925, 21, 415
 1929, 26, 471
Weights and Measures Acts (conspectus), 15, 1038
Wheat
 bulk handling of, in Australia, 39, 954
 for grain: distribution of acreage, 1962–63* (map), 50, 1013
Wholesale price indexes, 55, 1254
Wimmera-Mallee Gravitation Channel System (map), 13, 562
Wireless telegraphy, 15, 628
Wool Industry, Inquiry into, 29, 644
Workmen's Compensation Acts (conspectus), 22, 1028

* Also—1954–55, No. 43, page 833; 1947–48, No. 39, pages 977–8; 1938–39, No. 34, page 451; 1924–25, No. 22, page 695.

GENERAL INDEX*

This index is preceded by a list of the special articles, etc., which have appeared in previous issues of the Year Book. The illustrations contained in this issue are listed under the various chapters in the Contents (pages vii-xii). *Where more than one reference to a subject is given, the chief reference, wherever it has been possible to determine it, is indicated by italic type. Two references to a subject so indicated signify major, and approximately equal, importance.*

- 'A' Series Retail Price Index, 243
- Aboriginal
 advancement, outlay by Australian Government, 442
 grants to States, 582
 affairs, 1039
 children, education of, 1039, 1048
 people, developments in education of, 659
 welfare, 441, 1039
- Aborigines, 142, 417, 971, 1081
 special programs for, 1040
 special schools for, 1039
- Accidents
 aviation, 202, 397
 deaths from, 198-9, 202, 364, 375, 379-82, 397
 mining, 950
 railway, 202
 road traffic, 379
 shipping, 364
 tramway and bus services, 375-6
- Accommodation of migrants, 164
- Acoustic Laboratories, National, 457
- Activities in the housing field, government, 225
- Acts administered by Australian Government Departments, 94
 passed, Australian Parliament, 94
- Adelaide
 climatological data, 65
 population, 145
 University, 673
 waterworks and sewerage, 648
- Administration
 and legislation, 94
 Crown lands, 743-6
 letters of, 560
 mineral industry, 936
 Norfolk Island, 1058
 Territories, 1037, 1051, 1058, 1068, 1086-9
- Administrators of the Commonwealth, 79
- Advanced education, colleges of, 670
- Advances
 and grants to States, Australian Government, 577
 banks (*see also* Loans), 519, 521, 523-6
 pastoral finance companies—rural, 550
 to home purchasers, 236
- Advice and co-ordination, science and technology, 996
- Advisory Council, Transport, 351
 organisations, health, 457
- Aerial
 agriculture, 833
 medical services, 460, 1047
- Aerodromes, 397
- Aeronautical Research Laboratories, 106
- Aeroplane production, 107
- Age and invalid pensions, current rates, 416
 distribution at death, 192
 of population, 147
 labour force, 1973, 699
 pensioners, survey of, 443
 pensions, 413-4, 416
 school, 667
 specific birth rates, 181
 death rates, 193
- Aged pensioners dwellings, 432
 Persons Homes Act, 428
- Agents-General, States, 129
- Ages
 at death, 192
 malignant neoplasms, 198, 201
 suicides, 199
 tuberculosis, 198
 bridegrooms and brides, 173
 of sheep, 794
 parents, confinements, 185
 pensioners, invalid, new, 418
- Aggregate debt, State and local authorities, 634
- Agreement, Murray River Waters, 872
- Agreements, housing, between Australian and State Governments, 225
 sugar, 845
 trade, bilateral, 309
- Agricultural
 colleges, 1150
 Council, Australian, 839
 extension services, 841
 employment, 696, 839
 machinery on rural holdings, 837
 produce carried on railways, 371
 production, gross, local and net values, 1090
 quantum indexes, 1093
 research schemes, 840
- Agriculture (*see also* Crops), 747
 aerial, 833
 employment in, 838
 market outlook information, 841
 Territories, 1041, 1053, 1071
- Air
 Board, 104
 defence, 103, 1150
 Department, expenditure, 98
 freight, 394, 396
 mail, 396
 services, 393-7
 Cocos Islands, 1088
 commuter, 393
 international, 395
 interstate, 393
 intrastate, 393
 Norfolk Island, 1058
 overseas, 395-6
 Papua New Guinea, 1080
 within Australia, 393, 1047
- traffic control, 393
 transport, 393
 accidents, 397
 Councils, 394
 international activity, 394
 agreements, 395
 operations, 394, 396
 registrations, licences, etc., in force, 397
- Aircraft (*see also* Civil Aviation), 104, 107, 393
 accidents and deaths, 202, 397
 production, 107
 registered, 397
- Airline traffic, international, 395
- Airports, 397
- Airways facilities, 397
- Alice Springs—Port Augusta Railway, 1046
- Alienation of Crown Lands, 745
- All public authorities receipts and outlay, 617
- Allowances
 compassionate, 432
 maternity, 413-4, 421
 parliamentary, 83, 92
- Alteration of the Constitution, 21
 Alumina, 979
- Ammonium fertilisers, imports, 832
- Ammunition, production, 107
- Animal quarantine, 451
- Annexation of Australia, 3
- Annual
 interest payable, Government securities on issue, 625
 leave, 286
 mining census, 948
- Annuities, life insurance, 533, 535-6
- Anomalies, congenital, deaths, 197-9

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Antarctic
 Division, Department of Science, 1009
 research, 1009
 expeditions, 4, 1086
 Antarctic Territory, Australian, 22, 1086
 Anti-dumping legislation, 305
 Anti-tuberculosis campaign, 454
 Apparent consumption, foodstuffs and beverages, 1095
 Appeal Tribunals, War Pensions, 112
 Appendicitis, deaths, 197
 Appendix, 1149
 Apple and Pear Corporation, 848
 Apples and pears, 848
 exports, 789
 marketing, 849
 production, 786
 Apprentices' School, Army, 103
 Apricots, production, 787
 Arbitration
 Acts, and associated legislation, 260
 Commission, Australian Conciliation and, 260, 283
 Court, Commonwealth (*see* Conciliation and Arbitration Commission)
 Western Australia, 262, 286
 Archives, Australian, 1028
 Area
 and production, wheat, 757
 Australia, 6, 27
 compared with other countries, 25-6
 by States, 27
 crops (*see also* Specific crops), 748-50
 Crown lands alienated, 746
 leased or licenced, 744-5
 forests, 900
 irrigated, 878-96
 local government authorities, 614
 percentage in tropical and temperate zones, 27
 rural holdings, 746
 States and Territories, 6, 27, 1037, 1051, 1057, 1060, 1086-9
 Areas occupied under mining Acts, 937
 Army
 Australian, 97, 101-3
 Schools, 102-3
 Arrangement, deeds of, 478
 Arrivals
 from overseas, 156, 1033
 classification, 157, 1033
 excess over departures, 157
 nationality, 159
 Art galleries, 1024
 in Australia, 1023
 Artesian water supplies, 867
 Artificial
 fertilisers, 830
 limb and appliance services, Repatriation Department, 119
 Arts Council of Australia, 1017
 festivals, 1020
 Ashmore and Cartier Islands, 5
 ASIC, 730, 948
 Assemblies, legislative, 77, 85
 Assets
 fixed Postmaster-General's Department, 400
 insurance companies, 537-8
 savings banks, 527
 trading banks, 521-2
 Assistance to
 agriculture, 839
 cotton industry, 848
 fruit industry, 848
 gold mining, 942
 housing, Government, 225
 less-developed countries, 126
 meat industry, 853
 primary industry by Australian Government, 581
 shipbuilding industry, 353
 sugar industry, 845
 tobacco industry, 847
 university students, 660
 welfare organisations, 428
 wheat industry, 841
 wool industry, 850
 woolgrowers, 853
 Assisted
 immigrants, 163
 passages, 163
 Association of South-East Asian Nations (ASEAN), 123
 Astronomy, 1014
 Atomic Energy Commission, Australian, 940, 945, 1009
 Australia, Film, 1022
 Australia, general description, 25
 Australia-China trade agreement, 310
 Australia-New Zealand Free Trade Agreement, 309
 Australia-United Kingdom Trade Agreement, 309
 Australia-United States of America, meat agreement, 855
 Australian (*see also* particular headings)
 Atomic Energy Commission, 1009
 Ballet Foundation, 1021
 Bureau of Statistics, 1114
 Capital Territory, 5, 1051
 air and road services, 1054
 area, 6, 27
 creation of, 5
 diseases, notifiable, 469
 dwellings, 206-7
 education, 1054
 Electricity Authority, 994
 factories, 1054
 finance, 1056
 forestry, 1053
 heavy rainfalls, 38
 housing, 1052
 Jervis Bay, 5, 1053
 justice, 1056
 land tenure, 746, 1052
 Legislative Assembly, 1051
 livestock, 1053
 medical inspection of school children, 463
 municipal services, 1052
 National Capital Development Commission, 1051
 outlay on education, 683
 police, 489
 population, 132-5, 139, 1051
 production, 1052
 railways, 365, 1054
 stamp duty and tax, 598
 transfer to Commonwealth, 5
 works and services, 1052
 Conciliation and Arbitration Commission (Commonwealth), 261
 Council for the Arts, 1018
 Film Commission, 1022
 Government
 assistance to States, education, 657
 authorities of the, 566
 budget, 564, 1142, 1147
 deficit, financing of, 565
 departments, 94
 legislation, overseas trade, 301
 outlay on education, 681-3
 responsibilities in education, 657
 Industry Development Corporation, 561
 Innovation Corporation Limited, 1012
 Institute of Marine Science, 1010
 Meat Board, 853
 Missions overseas, 128
 National Gallery, 1024
 Trusts, 1019
 Official Development assistance to less developed countries, 126
 Opera, 1021
 Police College, 490
 relations with Asia and the Pacific, 123
 other powers, 124
 Schools Commission, Interim Committee for, 657
 Transport Advisory Council, 351
 Water Resources Council, 871
 Wheat Board, financial operations, 761
 Wool Board, 851
 Commission, 851
 Corporation, 851
 Industry Conference, 850
 Authorities of the Australian Government, 566
 cash benefits to persons, 574
 grants and advances to States, 577
 outlay by economic type and purpose, 569
 subsidies, 576
 summary of receipts and outlay, 568
 State, housing, 233
 Authority, Temporary Assistance Tariffs, 307
 Average fleece weight, 797
 rate of interest, Government securities on issue, 625
 returns from butter and cheese sold, 815
 value and size of private contract-built houses, 223
 weekly earnings, 268
 Aviation (*see also* Civil aviation)
 general, 396
 international activity, 394
 organisations, 394
 Naval, 99
 navigational aids, 397
 Royal Australian Air Force, 97, 103-5

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- 'B' Series Retail Price Index, 243
 Baas Beeking Geobiological Research Laboratory, 945
 Baby health centres, 463
 Bacon and ham
 consumption, 819
 exports, 820
 production, 819
 Balance
 of overseas trade, 316
 payments, Australian, 316, 341
 by regions, 346-7
 on capital account, 343, 345, 347
 current account 342, 344, 346
 Ballet Foundation, Australian, 1021
 Bananas, 788
 Bank, Commonwealth Development, 517, 530
 Trading, 516
 Banking
 Corporation, Commonwealth, 516
 development since Federation, 516
 legislation, 305, 513, 516
 Royal Commission, 516
 Bankruptcy, 478
 Banks, 516
 Australian Resources Development, 530
 cheque-paying (see Banks, trading), 520
 Commonwealth, 516-7
 savings, 517, 527
 assets, 527
 cheque accounts, 527
 deposits, 528
 interest rates, 527
 lending rates, 527
 school, 527
 State, 527
 trading
 advances 523
 assets, 521-2
 Commonwealth, 516
 debits to customers' accounts, 523
 deposits, 521-2, 526
 interest rates, fixed deposits, 521, 526
 liabilities, 521-2
 number of branches, 521
 overdraft limits, 525
 Barley, 766
 area, 768
 Boards, Australian, 767
 exports, 769
 for grain, area, production and yield, 768
 malt, 769
 world production, 769
 Barometric pressures, capital cities, 63-70
 Basic
 Materials and Foodstuffs Wholesale Price Index, 251
 Wage (see also National Wage Cases), 283
 Case 1966, 283
 Basins
 sedimentary, 930
 water-bearing, 868
 Bauxite, 934, 978
 Beds in hospitals, 465, 467
 Beef and veal
 consumption of, 808
 exports, 809
 production of, 807
 Bee-farming, 827
 Beer
 excise revenue, 600
 production, 738
 quantity on which excise paid, 335
 Bees-wax production 827
 Benefits
 funeral, 413-4, 421
 hospital, 434
 medical, 436
 national health, 433, 453
 nursing homes, 435
 pharmaceutical, 453
 provided, social security, 415-6
 social services, 415
 special social services, 425
 supporting mothers, 420
 unemployment and sickness, 413-4, 425
 Betting investments with licensed bookmakers, 560
 Beverages apparent consumption, 1095
 Bilateral trade agreements, 309
 Biological Standards Laboratory, National, 458
 Birdum-Darwin Railway, 1046
 Birth rates, 179
 crude, 179
 Birthplaces (see Countries of birth)
 Births (see also Confinements), 178
 ex-nuptial, 184
 legitimations, 184
 masculinity, 179
 multiple, 184
 premature deaths (see Immaturity)
 registration of, 178
 stillbirths, 188
 Biscuits production, 738
 Blankets, production, 738
 Blood Transfusion Service, Red Cross, 460
 BMR (Bureau of Mineral Resources), 943, 945
 Boats engaged in fisheries, 917
 Bonds, drought, 622-5
 Book publishing, Australian, 1025
 Border Rivers Agreement, New South Wales—
 Queensland, 874
 Borrowings, public sector, 621
 Botanical and Zoological Gardens, 1029
 Bounties (see also Subsidies), 576
 and stabilization plans, butter and cheese, 857
 Australian Government outlay on 576
 manufactures, 727
 Bran production, 738
 Brandy and wine, exports, 791
 Breeds of sheep, 794
 Bridegrooms and brides, ages, etc., 173
 Bridges, 635-43
 Brigades, fire, 492
 Briquettes, production, 738
 Brisbane
 climatological data, 66
 population, 144
 waterworks and sewerage, 647
 British
 migration, 163
 Phosphate Commissioners, 1088
 Preference, 301, 309
 Broadcasting (see also Radio), 407
 Commission, Australian, 407
 Control Board, Australian, 407
 legislation, 407
 listener's licences, 410
 programs, 408
 schools, 408-9
 services, 407
 stations, 408
 Bronchitis, deaths, 197
 Brown coal as energy source, Victoria, 988
 Budget, Australian Government, 564, 1142, 1147
 receipts and outlay, 565
 Buffaloes, 817
 Building, 212
 approvals, 212
 commenced, completed and under construction, 213
 societies, 241, 556
 stone, etc., quarried, 955
 Buildings, new, value of, 220
 Bulk handling
 sugar, 775
 wheat, 756
 Bullion, imports and exports, 333
 Burdekin River Irrigation Areas, 885
 Bureau
 Commonwealth Forestry and Timber, 903
 of Dental Standards, Commonwealth, 458
 Mineral Resources, Geology and Geophysics, 943,
 945
 Narcotics, Commonwealth, 487
 Roads, Commonwealth, 385
 Statistics, Australian, 1114, 1154
 Sugar Experiment Stations, 775
 Buses, 375-6
 Bush Nursing Associations, 463
 Bushfires, 905
 Butter
 and cheese, bounties and stabilization plans, 857
 prices, 814
 commercial, average returns, 816
 production, 813
 factories, 813
 Butterfat levy, 859
 By-law provisions, Customs, 305
 'C' Series Retail Price Index, 243
 Cabinet, 80, 82
 and executive government, 80
 ministers, Australian Government, 82
 Cadet
 corps, Australian, 103
 School, Officer Army, 102

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, see page 1153.

- Cadmium production, 938
- Canadian
Loans, 627-32
preference, 301, 309
- Canberra (*see also* Australian Capital Territory)
climatological data, 68
population, 145
rail, air and road services, 1054
schools, 1054
- Canberra-Queanbeyan railway, 1054
- Cancer (*see also* Malignant neoplasms)
International Agency for Research, 460
- Cane sugar, 775, 845
- Canned
fish, 926
fruit, 849
or bottled fruit, exports, 790
- Canteens Trust Fund, Services, 122
- Capacity and production, electricity in South Australia, 991
- Capital
expenditure, railways, 582, 585
works and services, 572
insurance companies, 537
punishment, 477
raised, new, 551
- Captain Cook Graving Dock, 653
- Cargo
discharged from overseas, 362
loaded for discharge overseas, 361
shipping, 359
- Cases tried at lower courts, 474-5
- Casey Research Station, 1087
- Cash benefits to persons
Australian Government, 574
Social Security, 413-4
- Casualties (*see* Accidents)
- Catchments, 866
- Cattle, 805
classification, 806
for milk production, 810
hides, imports and exports, 809
imports and exports, 807
number in States and Territories, 806-5, 1042, 1053, 1074
various countries, 807
slaughtered, 807
value, 808
- Causes of death, 197
- Cement (Portland) production, 738
- Censorship
films, 1023
- Census
manufacturing industry 1968-69, 729
- Censuses
dwellings, 205
electricity and gas establishments, 736-7
integrated, economic, 729, 948, 1099
population, 132, 1067
retail establishments, 1101
wholesale establishments, 1099
- Central
bank, 516
banking business, Commonwealth Bank (*see* Reserve Bank)
electric stations, 736-7
labour organisations, 297
Tobacco Advisory Committee, 847
- Cereals
grains, on-farm consumption, 835
consumption, 1026
grown in irrigated areas, 858, 861
- Cheese
and butter prices, 814
bounties and stabilization plans, 857
production, 813
- Cheque-paying banks (*see* Banks, trading)
- Chicken hatchings
and poultry slaughterings, 821
meat research, 856
- Chief events in Australia from 1955, 1135
- Child
care survey, 715
endowment, 413-4, 422
Health, Institute of, 457
- Children
deaths under one year, 200
- Children's libraries, 1027
- Christmas Island, 23, 1088
- Chronic illnesses, survey of, 470
- Chronological table, 1135
- Cigarettes and cigars
excise revenue, 600
quantity on which excise paid, 335
- Cities, population, 143
- Citizen
Military Forces, 97-105
Naval Forces, 101
- Citizenship, 165
- Civil
aircraft (*see* Aircraft)
aviation, 393
accidents, 397
aircraft registered, 397
freight, 394, 396
services, 393-7
overseas, 395-6
Papua New Guinea, 1080
transport councils, 394
- Civilian employees, 721-4
- Claims
general insurance, 539
life insurance, 535-6
- Classification
Australian Standard Industrial, 730, 948
by quality wool, 798
by type of activity and size, rural land, 747
of bank advances, 523
deposits, 524
cattle, 806
sheep, age, sex, breed, 794
- Clays, production, 955
- Clear days at the capital cities, 63-70
- Climate, 28
Territories, 1038, 1057, 1060, 1086-9
- Climatic controls, 28
data, selected Australian localities, 71-72
discomfort, 59
- Climatological data
capital cities, 63-70
selected stations, 71-2
- Clinics
baby, 463
school dental, 463
- Closer settlement, 745
- Cloth production, 738
- Clothing
and drapery, Retail Price Index Numbers, 248
- Cloud, 52, 63-70
at capital cities, 63-70
- Coal, 934, 979
Australian reserves, 933-4
Board, Joint, 939
carried on railways, 371, 374
exports, 976
mine workers' superannuation schemes, 543
mining, employment, 949
research, 946
production, 955-65
Research Advisory Committee, National, 946
- Coastal
radio stations, 407
Shipping Commission, Australian, 352
- Coastline, length of, 27
- Coaxial cable and broadband relay systems, 402
- Cocos (Keeling) Islands, 22, 1087
- Coinage, 514
profits on, 514
- Coke production, 738
- Collection and presentation of statistics, shipping, 355
- Colleges
advanced education, 670
Agricultural, 1150
grants to States, 687
Naval, Military and Air Force, 100, 102, 104
Police training, 490
senior secondary, 658
teachers training, 669
university, 673
- Colombo Plan, contribution, 126
- Colonisation of Australia, 3
- Colour television, 409
- Command organisations, army, 101
- Commercial
broadcasting and television stations, 408-9
butter, average returns Australia, 816
chicken, hatcheries, 822
fisheries, 913
vehicles, registration, 377

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Commission
 Australian Atomic Energy, 940, 945
 Hospitals and Health Services, 456
 Industrial, Western Australia, 262, 286
 Industries Assistance, 306
 Murray River, 872
 of Inquiry, Maritime Industry, 354
 Schools, 657
 Social Welfare, 447
- Committee of enquiry, wool marketing, 798
 Committee on Wool (Randall Committee), 850
 Commodity groups, retail sales, 1104
 Commonwealth (*see also* particular headings)
 Bureau of Narcotics, 487
 Constitution, 7
 alteration of, 21, 89
 referendums, prices and incomes, 90
 executive government, 14, 80
 finance and trade, 16
 judiciary, 15
 new States, 20
 Parliament, 7
 the States, 19
 Police, 490
 Sugar Agreement, 846
- Communication
 and transport, 351
 internal services, 402-5
 Territories, 1046, 1054, 1058, 1078, 1089
- Community College, Darwin, 1049
 Commuter services, air, 393
 Companies, finance, 545
 Company income taxes, 594
 Compassionate allowances, 432
 Compensation, workers, 295, 1155
 Components of receipts, State Authorities, 611
 Composition and weighting, export price index, 259
 Concentrates and ores exported, metallic content, 977
 Concepts of trade, statistical, 315
 Concessional deductions, income tax, 588
 Conciliation and Arbitration Commission Australian,
 261
 Equal pay cases, 284
 Condensed milk, (*see* Milk)
 Conferences, statistical, 1114, 1154
 Confinements (*see also* Births), 178
 ages of parents, 185
 countries of birth of parents, 186
 duration of marriage of mothers, 186
 issue of mothers, 186
 relative ages of parents, 185
- Congenital anomalies and diseases of early infancy, deaths,
 198
- Conjunctive use, surface and groundwaters, 868
 Conjugal condition (*see* Marital status)
- Conservation
 and control, water, 871
 interstate aspects, 871
 of fauna and flora, 1006
 soil, 829
- Conservatoria of music, 661
 Consolidated Revenue Fund, Australian Government, 564
 States, 606
- Constitution
 Alteration Referendums, 91
 Commonwealth (*see* Commonwealth Constitution)
 Constitutional powers of Australian Parliament, 12
 provisions, overseas trade, 301
- Constitutions, States, 19
 Construction materials mining of, 948
 production, 955
- Consular representatives, 128
 Consulting services, export of, 312
 Consumer Price Index, 244
- Consumption of
 beef and veal, 808
 butter and cheese local, 815
 eggs and egg products, 824
 fish, etc., 925
 foodstuffs, 1096
 meat and meat products, 804
 on-farm, major cereal grains and hay, 835
 pigmeat, bacon, ham, 819
 potatoes, 1096
 sugar, 1096
 wine and brandy, 790
 wool, 800
- Contagious diseases, 449-51, 469
 Containerised goods, trade, 314
 Contract Board, Department of Supply, 108
- Control
 and conservation, water, 871
 foreign ownership, mining industry, 966
 of exports, minerals, 939
 mining, 936
 petroleum exploration, 937
- Controls, climatic, 28
- Convictions
 at higher courts, 477
 magistrates' courts, 474-5
 for serious crime, 477
- Cook, Captain, 2-3
- Co-operative societies, 558
 Papua New Guinea, 1086
- Co-ordination and advice, scientific and technological
 services, 996
- Copper, 934, 979
 exports, 976
 production, 953-65
 Territories, 1043, 1075
- Copra, 1072
 Copyright, 495
- Coral Sea Islands Territory, 23, 1089
- Corporation, Apple and Pear, 848
- Cotton, 779
 area, production and yield, 780
 Bounty Act, 848
 raw, imports and exports, 780
- Council for the Arts, Australian, 1018
 of Trade Unions, Australian, 299
 Stevedoring Industry, 333
- Countries of birth
 migrants, 148
 parents, 186
 persons marrying, 174
 population, 148
- Country
 Fire Authority, Victoria, 492
 of consignment, exports, 316, 323-30
 origin, imports, 316, 323-30
 Roads Board, Victoria, 638
 water supplies, Western Australia, 892
- Court
 Conciliation and Arbitration (*see* Conciliation and
 Arbitration Commission)
 High, of Australia, 15, 479
 Industrial, 260
 Queensland, 262
 South Australia, 262
- 'Court' Index, 244
- Courts
 Federal, 15, 260, 473, 476, 479
 higher (judges'), 15, 476
 lower (magistrates'), 473
- Cremations, 470
- Crime
 reported to police, 481
 serious, 475-7, 481-3
 cases, 475-7, 481-3
 committals, 476
 convictions, 477
- Crimes cleared and persons involved, 481
- Criminal proceedings, 473
- Crop production, Papua New Guinea, 1072
 value, gross, 753-5
- Crops, 747
 and pastures, areas artificially fertilised, 830
 area (*see also* specific crops), 748-50
 fertilised, etc., 830-1
 distribution of, 748
 in irrigated areas, 878-96
 production and value, 751-5
 yield per hectare, 752
- Crown lands
 administration and classification, 743-6
 alienation and occupation, 745
 areas leased or licensed, 745-6
 conditional and unconditional purchases, 744
- Crude oil (petroleum), 934, 979
 pricing of, 941
- Crustaceans, 913, 917, 920, 924
- CSIRO, 1007
 Minerals Research Laboratories, 945
- Cultivation, progress of, 747
- Cultural activities, 1017
- Currency, 513, 1151
 export controls, 305
 legislation, 513
- Current outlay, Authorities of the Australian Government,
 572

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Customs duties, 301, 334, 598
 import licensing regulations, 305
 legislation, 301
 revenue, 334, 598
 tariff, 301
 developing countries, 303
- Cyclones, 28
- 'D' Series Retail Price Index, 243
- Dairy
 Adjustment Program, Australian, 857
 Industry Stabilisation Fund, 856
 products, 856
 equalisation schemes, 858
 exports 817
 marketing of, 857
 overseas trade, 816
- Dairying industry, 809
 bounties, 857
 equalisation and stabilisation, 857-8
 extension, research and promotion, 858
 value of production, 1091-2
- Dams, major, 863
- Darwin
 climatological data, 64
 Community College, 1049
 Darwin-Birdum Railway, 1046
 Dawson Valley Irrigation Scheme, 885
- Death
 rates, 190
 accidents, 198, 202
 age-specific, 193
 crude, 190
 heart diseases, 197, 201
 infant, 195
 malignant neoplasms, 197, 200-1
 suicide, 198, 202
 true, 190
 tuberculosis, 197
 various countries, 203
 violence, 198, 201-2
- Deaths, 189
 accidents, 198-9, 201-2, 364, 375, 379-82, 397
 ages at death, 192, 198
 causes, 197
 congenital anomalies, 197-9
 heart diseases, 197-9, 200
 infants and rates, 195
 malignant neoplasms, 197-8, 200-1
 members of friendly societies, 557
 puerperal causes (*see also* maternal causes), 184-5
 registration of, 171, 189
 suicide, 198-9, 201-2
 tuberculosis, 197
 violence, 198-9, 201-2
- Debt
 charges, assistance to States, 583
 Local government, 632
 public, semi-government authorities, 632
- Deceased persons' estates, 560
- Decentralisation
 and community interest in education, 658
 of manufacturing industries, 727
- Decrees granted, divorce, 176
- Deeds of arrangements, bankruptcy, 478
- Defence, 95
 co-operation with South-East Asian countries, 99
 departmental organisation, 95-6
 Departments and Services expenditure, 98
 expenditure, 98, 572
 Force, education, 677
 educational training, 663
 forces, 96-105
 logistic arrangement with U.S.A., 98
 policy, current
 research and development, 98, 105
 Science, 1010, 1015
 service homes, 228
 Service Homes Act, operations under, 229
 Standards Laboratories, 106
 supply planning, 108
- Definition of mineral exploration, 970
- Definitions
 enterprise statistics, 1106
 industry concentration statistics, 1111
 Manufacturing Census, 730-1
 private overseas investment, 335-6
 survey of income distribution, 275
 weekly earnings, 270
- Degrees conferred, universities, 674
- Dehydrated vegetables, 794
- Delivered Meals Subsidy Act, 431
- Delivery network, mail, 401
 quotas, wheat, 844
- Dental
 clinics, school, 463
 inspection of school children, 463
 Standards, Commonwealth Bureau of, 458
- Department of Health Pathology Laboratory Service, 456
 Transport, Air Transport Group, 393
- Departmental reports, 1120
- Departments, Australian Government, 94
- Departures
 overseas (*see also* Migration), 156, 1033-37
 classes, 157
 country of intended residence, 161
 nationality, 159
- Deposits
 insurance companies, 531-2
 interest rates, banks, 521, 526
 savings banks, 528
 special, 519, 522
 trading banks, 521-2, 526
 under Insurance Acts 532
- Description of items, national accounts, 499
 income and expenditure
 accounts, 508-11
- Deserted Wives Act 1968, 431
- Design Council of Australia, Industrial, 728
- Designs, trade marks, 494, 1151
- Determination of wage rates, 283
- Developing countries, customs tariff, 303
- Development
 Bank, Australian Resources, 530
 Corporation, Australian Industry, 561
- Developments
 in education of special groups, 659
 primary and secondary education, 658
 railways, 364, 374
 tertiary education, 660
- Diabetes mellitus, deaths, 197
- Diary of principal economic events, 1141
- Diphtheria, 469
- Diplomatic representation
 in Australia, 129
 overseas, 128
 to Australia, 129
- Direct investment income payable overseas, 340
- Discomfort, climatic, 59
- Discovery of Australia, 1
- Diseases
 heart, deaths, 197-9, 201
 infectious and contagious, control of, 449-51, 469
 notifiable, 469
 venereal, 197, 469
- Disposal of wheat in Australia, 759
- Disputes, industrial, 287
 causes, 293
- Dissolution of Parliament, 14, 84
 constitutional provisions, 14
- Distances by sea, 364
- Distribution and volume, surface water, 862
 of crops, 748
 pigs, Australia, 818
 population and location of power resources, 981
 throughout Australia, cattle, 805
- Divorce and other matrimonial causes, 175
 decrees granted, 176
 petitions filed, 175
- Divorced persons, census figures 1921-1971, 178
- Docking facilities, Sydney, 653
- Domestic airline services, scheduled, 393
 airlines, passengers carried, 394
 mineral prices, 977
 Product Gross, 497, 502
 rebate on sugar use, 846
- Domiciliary nursing care, 434
- Double orphans pension, 420
- Drainage 643-52
- Dried fruit, 789
 vine fruit industries, 792
 fruits and wine, 849
- Driest regions, 28
- Drivers' and riders' licences, 379
- Drought, 57, 1154
 bonds, 622-5
- Drowning deaths, 202
- Drug Evaluation Committee, 458
 offences, 483-7
 prosecutions and convictions, 485-6
 reported, 484
 seizures by Department of Customs and Excise, 488
 types involved in drug charges, 487

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Drugs (*see* Medicines)
 law enforcement in respect of, 484
- Drunkenness, 475
- Duration of industrial disputes, 291
- Duties
 customs, 301, 334, 598
 estate, Federal, 597
 excise, 335, 600
 gift, 586, 598
 primage, 305, 599
 probate and succession, 612-3
 stamp, States, 612-3
- Dwellings (*see also* Houses, Housing), 205
 censuses, 206 -
 class, 206
 facilities, 210
 for Aged Pensioners Scheme, 227
 inmates, 210
 material of outer walls, 208
 nature of occupancy, 208
 number of, 205
 rooms, 209
 occupied, by class, 207
 private, 205-11
 unoccupied, 205-6, 211
 urban and rural, 206
- Early childhood services education, 662
 discoveries, Australia, 1
- Earnings
 average weekly, 268
 gross, government railways, 373
 groups, adult male employees, 258
 net, government railways, 373
 overtime and ordinary time, 271
 Postmaster-General's Department, 399
 surveys of, 269-74
- Eastern countries, trade with, 331
- ECAFE, 123
- Economic activity, Norfolk Island, 1058
- Economic censuses, integrated, 729, 948, 1099
 internal trade, 1099
 manufacturing, 729
 mining, 948
 events, diary, of principal, 1141
- Edible fisheries products, 926
- Education (*see also* Colleges, Schools, Universities) 657,
 1048, 1054, 1082
 Aboriginal people, developments in, 659
 Australian Government, assistance to States, 657
 responsibilities in, 657
 decentralisation and community involvement, 658
 Defence Force, 677-8
 developments in primary and secondary, 657
 early childhood services, 662
 examinations and accrediting, 658
 expenditure, 572, 678-88
 grants to States, 580
 handicapped children, 660
 migrant, 167, 660
 Northern Territory, 1048
 overseas students, 677
 Scheme, Soldiers' Children, 120
 scholarships and bursaries, 662
 Specific grants to States, 685
 State responsibilities in, 657
 statistics, 663
 student assistance schemes, 662
 teacher, 669
 technical, 668
 and further, 661
 grants to States, 686
- Educational institutions, number, 664
 summary, 664
 training, Defence Force, 663
- Egg
 Boards, 855
 consumption, 824, 1096
 industry stabilisation scheme, 855
 marketing, 856
 production, 823
 value, 824
 pulp, etc., production, 824
 trade, 823
- Eggs and egg products, consumption, 824, 1096
 set, commercial hatcheries, 822
- Fildon Reservoir, 863-881
- Elections, 83-6
- Electoral expenditure, 93
- Electric
 power, A.C.T., 994
 generation and distribution, 981
 Papua New Guinea, 1077
 States and Territories, 986
 production, sources of energy, 981
 resources and distribution of population, 981
 tramway services, 375
- Electrical
 installation materials, wholesale price index of, 252
- Electricity
 and gas establishments, census, 1969-70, and 1971-72,
 737
 Commission of New South Wales, 986
 Papua New Guinea, 1077
 establishments, operations of, 736-7
 generation, and distribution, States and Territories,
 986-94
 supply, value of production, 736-7
- Electronics supply, Department of Supply, 108
- Elizabethan Theatre Trust, 1017
- Emergency financial assistance to woolgrowers, 853
- Employees
 civilian, 721-4
 government, 721, 723-4
 private, 721
- Employer and employee organisations, registered, 296
- Employment (*see also* Censuses and Population), 689
 agriculture, 838
 females, manufacturing establishments, 733
 fisheries, 918
 forestry, 906
 hours worked, 700-2
 industry groups, 691-2, 699
 manufacturing establishments, 733
 mining industry, 949
 new buildings, 213, 223
 occupational status, 690
 Postmaster-General's Department, 398
 railways, 374
 rural, 696, 838
 Service, Commonwealth, 724
 status, 692
 tramway and bus services, 375-6
 wage and salary earners, 720
- Enactments of the Parliament, 94
- Endowment, child 413-4, 422
- Enrolments
 schools, 664
 technical and further education, 668
 universities, 673
- Enterprise and Industry Concentration Statistics, 742, 1106,
 1110
- Environmental protection, 1006
- Equal pay cases, 284
- Equalisation schemes, dairy products, 858
- Establishments, manufacturing, 732-6, 738-42
 mining, number of, 948
 summary of operations, 948
 retail trade, 1102
 wholesale trade, 1099
- Estate duty, 597
- Estates of deceased persons, 560
- Estimates at constant prices, national accounts, 500
 of stocks of buildings, intercensal, 224
- Eucalypts, 899
- Eucalyptus oil exports, 911
- Eucumbene Dam, 863, 982
- Evaporation, 54
 at the capital cities, 63-70
- Examinations, 658
 public secondary, 658
- Exchange
 control regulations, 305
 rates, 515
- Exchanges, telephone, 403
- Excise, 335
 revenue, 600
- Executions, 477
- Executive Council, the, 80
 councillors, 14, 80
 government, 14, 80
- Ex-nuptial
 births, 184
 confinements, 184

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Expenditure**
 Authorities of the Australian Government on new fixed assets, 572
 by Australian Government on Science and Technology, 1000
 purpose, States, 609
 goods and services, 572
 national gross, 498
 on education, 678
 social security services, Australian Government, 413-4
 public enterprises, 573
 State Railways, 610-11
- Expenses**
 Postmaster-General's Department, 399
 working, government railways, 373
- Exploitation, commercial fisheries, 913**
- Exploration, petroleum, 973, 979**
- Export**
 Charge, meat, 854
 consulting services, 312
 control and regulation, apples and pears, 848
 controls, 305
 metals and minerals, 939
 incentives, 306
 licences, 305
 of wool, quantities, 800
 Payments Insurance Corporation, 313, 540
 Price Index, 258
 numbers linked series, 1936-37 to 1970-71, 260
 rebate, sugar, 847
- Exporting and importing countries, wheat, 763**
- Exports (see also individual commodities)**
 Australian produce, 325-31
 and imports, cattle, 807
 hides, 809
 fruit, 789
 tobacco, 779
 wine and brandy, 791
 barley, 769
 beef and veal, 809
 bees-wax, 828
 bullion and specie, 333
 calendar years, 334
 classification of, 316
 countries of consignment, 316, 325-30
 dairy products, 817
 forest products, 911
 frozen mutton and lamb, 805
 honey, 828
 industry groups, 321
 maize, 771
 merchandise, 318-9, 325-30
 minerals, 975
 of sheep, regulations, 850
 oats, 766
 pigs and pig products, 820
 poultry products, 825
 principal articles, 320, 325-31
 prohibition of, 305
 merino sheep, 850
 proportions of, to various countries, 324
 raw cotton, 780
 ships' and aircraft stores, 331
 sugar, 778
 sugar to United States of America, 846
 Territories, 1046, 1058, 1078, 1088
 value, 315, 317-21, 323-30
 wheat and flour, 761
 wool, value of, 802
- Ex-service, personnel, widows and children, survey of, 122**
- Ex-servicemen, medical treatment for, 118**
- Extension services, agriculture, 841**
- Facilities, dwellings, censuses, 210**
- Factories (see also manufacturing establishments)**
 decentralisation, 727
 munitions, 107
 Northern Territory, 1045
 principal products, 738-42
 salaries and wages paid, 729
 tallow consumption, 826
 tobacco, 848
- Factory production, butter, 813**
 cheese, 813
 operations, Papua New Guinea, 1076
- Farm**
 machinery on rural holdings, 837
 production, quantum indexes of, 1093
 stocks of cereal grains, silage and hay, 834
- Farmers, assistance to, 576, 836**
- Farming bee, 827, 1091**
- Fathers, age of, 185**
- Fauna and flora resources, conservation of, 1006**
 Northern Territory, 1038
- Federal awards, total wages 283**
 Government grants to the arts, 1018
 minimum wage, 283
 sales tax, 600
- Federated Trade Unions, 296**
- Federation of Australia, 5**
- Female**
 employment manufacturing establishments, 733
 population, 134-7, 148-9
 wage rates, 262, 265-8
- Ferries, 375, 1151**
- Fertilisers, 829**
 imports and exports, 832
 used in agriculture, 830
- Fertility**
 and reproduction, 182
 of marriages, 182
 rates, 179
- Film**
 and Television Board, 1022
 Australia, 1022
 Board, Australian National, 1022
 Branch, Department of the Media, 1022
 censorship, 1023
- Final consumption expenditure, by purpose, 572**
- Finance**
 and management services, Department of Supply, 109
 Australian Government, 563, 1142, 1147
 and State, 563, 606
 authorities, 566
 business, hire purchase operations, 545-9
 Companies, 545
 amount financed, 545-9
 balances outstanding, 545-6
 collections, etc., 546-7
 factoring, 546
 instalment credit, 547-9
 legislation, 545
 Local Government, 615-6
 mental hospitals, 469
 private, 513
 public, 563
 hospitals, 465
 State, 606
 authorities, 606
 Territories, 1050, 1056, 1059, 1083
- Financial**
 Agreement, Australian Government and States, 622
 1151
 assistance to primary producers, 576, 836
 soldier settlers, 745, 1154
 sugar industry, Government, 847
 university students, 678
 operations, Wheat Board, 761
 provisions of the Constitution, 16, 563
 transactions, local authorities, 615-6
- Financing requirements**
 Australian Government Budget, 565
- Fire**
 brigades, 492
 Commission, Tasmania, 493
 insurance, 539
 protection, forests, 904
- Fish**
 consumption, 925, 1096
 marketing, domestic, 925
 overseas trade, 926
 preserving and processing, 924
- Fisheries (see also Fish, Fishing, Pearls, Whaling), 913**
 administration, 915, 1151
 employment, 918
 production, 919
 products, edible, 926
 inedible, 927
 research, 915
 resources, 913, 916, 1044, 1075
 statistics, sources, etc., 917
 Territories, 1044, 1075
 value of production, 919, 1091
- Fishing**
 areas, 916
 boats and equipment, 917
 industry, 913
- Flats, new, 217**
 approved, commenced, completed and under construction, 217
 occupied, self-contained, 210
- Flax for linseed, area and production, 781**

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, see page 1153.

- Fleeces average weight, 797
 Fleet air arm, 99
 Flinders University of South Australia, 673
 Floods, 57
 Flora, Northern Territory, 1038
 Flour,
 and wheat exports, 761
 production, 739
 Flow variability, surface water, 863
 Flying
 accidents, 397
 Doctor Service of Australia, Royal, 460
 Fodder, crops, 772
 Fogs, capital cities, 63-70
 Food group, Retail Price Index Numbers, 248
 Foodstuffs and beverages apparent consumption, 1095
 Forces
 armed, 96-105
 police, 488-9
 Foreign aid, 126-7
 control measurement of, mining, industry, 968
 ownership and control, mining industry, 966
 representatives, 129
 Forest
 fires, 905
 products laboratory (CSIRO), 903
 overseas trade in, 910-11
 research, 903
 reserves 744
 Forested areas, extent of, 900
 Forestry, 899, 1152
 administration, 903
 and Timber Bureau, 903
 Australian Government activities, 585, 903
 Council, Australian, 904
 education, 904
 employment, 906
 private, 904
 production, 907, 1044, 1053, 1075
 value of, 1091-2
 research, 903
 School, Australian, 904
 State Departments, 903
 Forests, 899, 1044, 1053, 1075, 1152
 and timbers, general account of, 899
 classification, 899
 extent of, 900
 fire protection, 904
 research, 903
 Forty-four hour week, 267
 Forty-hour week, 268
 Fractured rocks, groundwater, 868
 Franchise, qualifications, Australian Parliament, 84
 States, 77
 Free
 grants of Crown lands, 744
 Trade Agreement, Australia-New Zealand, 309
 Freehold, land purchases of, 744
 Freight
 air, 394, 396
 carried, Government and private railways, 371, 374
 Private railways, 374
 railways, 371, 374
 rates, shipping, 364
 Fremantle, Port Authority, 655
 Frequency, raindays, 35
 Friendly societies, 557
 Frosts, 46-50
 Frozen meat (*see* Beef and Mutton)
 Fruit, 786, 848
 area and production, 786
 canned, 849
 imports and exports, 789
 Industry, Sugar Concession Committee, 846
 principal crops, 788
 Fruit growing Reconstruction Scheme, 849
 Fuel oil imports, 319, 325-31
 Fund benefits, hospitals, 434
 Funding of scientific and technological research, 997
 Funeral benefits, 413-4, 421
 Future development of electricity in New South Wales, 987
 Queensland, 991
 Tasmania, 994
 Victoria, 989
 roads, 392
 Gaols, 490
 Gas, natural, 930, 935, 958, 980
 Gauge
 railways, 365-8, 374, 1046, 1154
 standardisation of, 366, 1154
 Geelong
 Harbour Trust, 654
 population, 144
 Gemstone, 930
 General Agreement on Tariffs and Trade, 307
 aviation, 396
 purpose grants, States, 578
 Generation and distribution, electric power, 981
 transmission, electric power, N.S.W., 987
 Geographic background, water resources, 861
 Geographical
 distribution of population, 140
 features of Australia, 25-7
 position of Australia, 25
 Geology, 929
 economic, 929
 Gift duty, 586, 598
 Global radiation, 54
 Gold, 934
 imports and exports, 333, 1079
 prices, 514
 production, 953
 Territories, 1043, 1075
 receipts, issues, and price, 514
 Gold-mining industry, assistance to, 942
 Goods
 and services, States expenditure on, 609-11
 receipts, railways, 372
 tonnage carried, Government railways, 371
 traffic, railways, 371, 374
 Government
 activities in the housing field, 225
 administration of fisheries, 914
 assistance (*see also* Subsidies)
 mineral industry, 940
 primary producers, 576, 836
 Australian, 77, 85
 bounties, butter and cheese, 857
 Departments, Australian, 94
 employees, 723-4
 executive, 14, 80
 grants to the arts, 1018
 local, 613
 omnibuses, 375
 Parliamentary, outlay on, 93
 scheme of, 77
 pension schemes, 540
 railways, 364
 earnings and working expenses, 372-3
 passenger-kilometres, 370
 route kilometres open, 365-6
 summary of operations, 368
 research agencies, science and technology, 1007
 schools, administration, 657
 enrolments, 664
 expenditure, 678-86
 number, 664-5
 teachers, 665
 securities on issue, 622
 support, wheat industry, 843
 trade correspondents, 130
 Governor-General
 establishment, expenditure, 93
 holders of office, 78
 powers and functions, 77
 Governors
 powers of, 79
 State, 79
 Grain sorghum, area, production and yield, 770
 Grains Agreement, International, 845
 Grants
 and advances to States, Australian Government, 577
 Commission, Commonwealth, 579
 for road construction, Australian Government 582, 636
 free, of Crown Lands, 744
 to States, education, 685
 general purpose, 578
 health, 580
 housing, 582
 natural disasters, 581
 other specific purposes, 582
 rural reconstruction, 581
 special, 579
 specific purpose, 580
 transport and communications, 582
 water resources projects, 581
 welfare, 580
 Grapes, table, 792
 Graphs (*see* Contents, pages vii-xii)
 Greasy wool produced, value, 797
 Great
 Artesian Basin, 867
 Southern Towns Water Supply, 892

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Green feed, 774
 Gross and net reproduction rates, 182
 domestic product, 497, 502
 expenditure on R and D by objectives, 999
 national expenditure, 498
 value of agricultural production, 1094
 primary production, 1091
- Ground water, sources of, 867
 supplies, 867
- Group Movement, productivity, 1012
- Guarantee Scheme, lamb, 855
- Guided weapons, supply, 107
- Hail and thunderstorms, 38
- Ham and bacon consumed, 819
 production, 818
- Handicapped children, benefits, 434
 education of, 660
 training and accommodation, 431
- Hansen's disease, 467
- Harbour
 Boards and Trusts, 652
 Bridge, Sydney, 638
 services, State expenditure, 652-6
 revenue, 652-6
- Harbour (*see* Ports)
- Hay, 772
 area, production and yield, 773
 exports, 781
 on-farm consumption, 836
 types grown, 773
- Health, 449
 advisory organisations, Australian Government, 457
 and Medical Research Council, National, 457
 Australian Department of, 449
 benefits, national, 416, 453
 subsidised plan, 438
 centres, infant welfare, 463
 chronic illnesses survey, 470
 grants to States, 580
 Institute of Child, 457
 Laboratories, 456
 Organization, World, 460
 public, 449, 1152
 legislation and administration, 461
 School of, and Tropical Medicine, 457
 services organisation, national, 456
 to schools, 463
 Territories, 1056, 1082
- Heard Island, 22, 1086
- Heart disease, deaths, 197, 201
 Foundation of Australia, National, 460
- Heat discomfort, 60
 waves, 46
- Heights of capital cities above mean sea level, 63-70
- Hides and skins, overseas trade in, 826
- High
 Commissions, 128
 Court of Australia, 15, 479
- Higher courts, 15, 476
- Highways (*see* Roads)
 Department, South Australia, 640
- Hire purchase operations of finance businesses, 545-9
- Historic Memorials Committee, 1020
- History of Roads in Australia, 385
- Hives, bee, 827
- Hobart
 climatological data, 70
 Marine Board, 655
 population, 145
- Holdings
 rural, number and area, 746
 tractors on, 837
 Territories, 1040, 1052, 1070
- Home
 care centres, senior citizens, 432
 consumption price, wheat, 843
 nursing care, 434
 subsidy scheme, 456
 purchasers, advances to, 236
 Savings Grant Scheme, 230
- Homes
 aged persons, 429
 defence services, 228
 disabled persons, 430
 nursing, 464, 466
- Homicide
 cases, 477, 481
 deaths from, 202
- Honey and bees-wax, overseas trade in, 828
 production, 827
 value, 828
 levy, 828
- Hops, 782
 production and disposal, 782
- Horses
 numbers, 826
 overseas trade in, 826
- Hospital benefits, 434
 organisations, 435
 fund benefits, 434
 insurance premiums, 434
 or medical expenditure assistance schemes, survey of
 persons covered, 438
- Hospitals
 and Health Services Commission, 456
 finances, 465
 leper (*see* Hansenide), 467
 mental, 459, 468
 patients treated, 465
 private, 466
 public, 464
 repatriation, 118, 467
 staff, 465
- Hourly wage rates, 267
- Hours of work, 262
- House of Representatives, 9, 77, 88-9
- Household supplies and equipment group, Consumer Price Index, 248
- Houses (*see also* Dwellings)
 new, 217
 approved, completed and under construction, 214
 completed, material of outer walls, 217
 occupied, private, 205-11
 tenanted, private weekly rent (*see* Rent)
- Housing, 205
 Agreement (Servicemen), 226
 1973, 226
 Agreements, Australian and State Governments, 225
 Australian Capital Territory, 1052
 authorities, State, 233
 Consumer Price Index, 248
 Government activities, 225
 loans, insurance companies, 241
 savings banks, 240
 trading banks, 241
 Loans Insurance Schemes, 232
 purchase, State and Territory authorities and agencies,
 236
 schemes, Australian Territories, 235
 Human quarantine, 449
 Hume reservoir 863
 Humidity, 50, 63-72
 at the capital cities, 63-70
- Hunting, value of production, 1091-2
- Hydro-Electric Commission, Tasmania, 993
- Hydro-electric power, 982-6, 988
 Papua New Guinea, 1077
 Scheme, Snowy Mountains, 982
- Hydro-electricity, N.S.W., 988
- Hydrology of Australia, 1152
- Ice cream production, 739
- Illegitimacy (*see* Ex-nuptial births)
- Illnesses, chronic, incidence of, 470
- Immaturity, deaths, 200
- Immigrants (*see* Migrants)
- Immigration (*see* Migrants, Migration)
 program 1973-74, 162
- Immunisation, rubella, 456
- Impairments, injuries and chronic illnesses, 470
- Import controls—Customs (Import Licensing) Regulations,
 305
 licensing regulations, 305
- Importation, dangerous drugs legislative provisions, 483
- Imports (*see also* individual commodities)
 and exports, artificial fertilisers, 832
 cattle, 807
 tobacco, 779
 bullion and specie, 333
 calendar years, 334
 classification of, 316
 clearances, 334
 commodity divisions, 319, 325-31
 country of origin, 316, 323-30
 customs, revenue from, 334, 599
 dangerous drugs, legislative provisions, 483
 economic classes, 322
 forest products, 910
 hops, 782
 merchandise, 316, 318-9, 325-30
 minerals, 975
 products of various countries, 325-31

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Imports—*continued*
 proportions from various countries, 324
 raw cotton, 780
 Territories, 1046, 1058, 1078
 value, 317-9, 322-3, 325-30
 wheat, 761
 wine and brandy, 791
- Improvement and conservation, soil, 829
- Incentives, export, 306
- Income
 distribution, survey of, 274
 national, 497
 tax, 585-96
 assessable income, 588
 assessment, 588, 592-3
 Australian Government, 585-96
 collections, 585-96
 companies, 594
 concessional deductions, 588
 effective exemption from, 589
 grades of income, 592-3
 individuals, 587-93
 on specified incomes, 591
 pay-as-you-earn, 587
 rates, 589, 594
- Indebtedness per head
 State and local authorities, 632
 States, 635
- Index numbers
 export prices, 258-9
 farm production, 1093
 Retail price
 consumer, 248
 international comparisons, 250
 wage rates, minimum, 263-8
 Wholesale price
 basic materials and foodstuffs, 251
 electrical installation materials, 252
 Melbourne, 251
- Indexes of primary production, 1092
 quantum of agricultural production, 1093
 value, imports, exports at constant prices, 348
- Indigenous
 agriculture, Papua New Guinea, 1073
 labour, Papua New Guinea, 1080
 population, Papua New Guinea, 1067
- Individual minerals, 934
- Indonesia trade agreement, 310
- Industrial
 Arbitration Acts, 260
 business, life insurance, 533-6
 Commission, New South Wales, 262
 Western Australia, 262, 286
 Court, Federal, 260
 Queensland, 262
 South Australia, 262
 Design Council of Australia, 728, 1011
 disputes, 287
 causes, 293
 duration, 291
 industry groups, 287-9
 methods of settlement, 294
 wages lost, 288-91
 workers involved, 288-9
 working days lost, 287-90
 finance Department, Commonwealth Bank, 530
 legislation, 260, 283-7
 life insurance, 533-6
 operations, standardisation of, 727
 productivity, promotion of, 1012
 research and development organisations, 1011
- Institute, South Australia, 1012
 tribunals, State, 262
- Industries
 Assistance Commission, 306
 exports according to, 321
 secondary, Territories, 1045, 1054, 1076
- Industry
 assistance, shipbuilding, 353
 concentration statistics, 742, 1110
 dairying, 809
 Development Corporation, Australian, 561
 of employed population, 691-3
 labour force, 699
 research in, 1010
 standardisation in, 727
 statistics, manufacturing from 1968-69, 729
- Infant
 deaths, 195, 200
 and rates, 195
 life, supervision and care of, 462
 mortality rates, 195
 welfare centres, 463
- Infectious and contagious diseases, control of, 449-51, 469
- Infective diseases, deaths, 197-8
- Inflow of private overseas investment, 337
- Influenza deaths, 179, 199
- Information services, science, 1007
- Injuries, impairments, chronic illnesses, 470
- Instalment credit, retail sales, 547-9
- Institute of Child Health, 457
- Institutions, mental health (*see also* Hospitals), 459, 468
- Insurance, 531
 Acts, deposits under, 532
 Corporation, Export Payments, 313, 540
 Deposits Act, 1932-1973, 531
 fire, marine and general, 539
 life, 532
 Scheme, Housing Loans, 232
- Integrated economic censuses, 729, 948, 1099
- Integration, migrant welfare and education, 166-7
 of statistical services, 1114
 services, migrant, 166
- INTELSAT, 406
- Interest
 Australian Government revenue from, 565
 securities on issue, 629
 local government debt, 634
 rates, bank deposits, 521, 526
 on public securities on issue, 629
 State revenue from, 607-8
 securities on issue, 629
- Interim basis, export price index, 259
 Committee for Australian Schools Commission, 657
 Retail Price Index, 244
- Internal migration, survey of, 167
 telegram traffic, 404
 trade, 1099
- International
 activity, air transport, 394
 Agency for Research on Cancer, 460
 agreements, aviation, 395
 air services, 395
 aspects, water resources, 875
 Bank for Reconstruction and Development, Loans, 630
 Civil Aviation Organisation, 394
 Grains Agreement, 845
 Labour Organisation, 297
 Lead-Zinc Study Group, 947
 payments (*see* Balance of payments)
 population statistics, 153
 relations, 123
 reserves, 348
 scientific organisations, Australian participation, 1013
 Sugar Agreement, 846
 tariff negotiations, 307
 telecommunication traffic, 406
 Tin Agreement, 947
 vital statistics, 203
 Wheat Agreements, 844
- Interstate
 aspects, water control and conservation, 871
 exchange rates (*see* Banks, trading charges)
 shipping, 357
 trade, 1114
 trade unions, 296
- Intoxication, convictions, 475
- Intrastate air services, 393
- Invalid
 and age pensions, current rates, 416
 pensioners, survey of, 443
 pensions, 413-4, 416
- Investment income payable overseas, 338-9
 receivable from overseas, 341
 overseas private, 335
- Ionospheric prediction service, 1007
- Iron
 and steel production, 739
 ore, 934, 979
- Irrigated culture, New South Wales, 878
 Queensland, 884
 South Australia, 889
 Tasmania, 895
 Victoria, 881
 Western Australia, 892
- Irrigation and water conservation, States and Territories, 876
 areas, Murray River, 891
 Queensland, 885
 in Australia, 865
 on rural holdings, 833
 schemes, New South Wales, 877
 South Australia, 888
 systems, Victoria, 881
 Tasmania, 894
 Western Australia, 891
- Issue, mothers, 186

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- James Cook University of North Queensland, 673
 Jams and jellies production and consumption, 789
 Japan trade agreement, 310
 Jervis Bay, 5
 Job vacancies, 725
 Joint Coal Board, 939
 Judges' courts, 15, 476
 Judicature, Australian, 15
 Judicial separations, 176-7
 Judiciary, Papua New Guinea, 1070
 Justice
 Australian Capital Territory, 1056
 public, 473
- Keeling (Cocos) Islands, 22, 1087
- Laboratories
 Aeronautical Research, 106
 Commonwealth Serum, 456
 Defence Standards, 106
 Forest products, 903
 Health, 456
 Laboratory, National Acoustic, 457
 Radiation, Australian, 457
- Labour
 force experience, 1972, 710
 marital status, 699
 persons not in, 705
 Survey, 693
 indigenous, Papua New Guinea, 1080
 mobility, 712
 organisations, 295
 wages and prices, 243
 Lakes of Australia, 27, 1152
 Lamb (*see also* Mutton and Lamb), 803
 exports of, 805
 Guarantee Scheme, 855
- Land
 irrigated, 865-97
 legislation, 743, 1152
 revenue, State, 612-3
 settlement, returned soldiers, 745, 1154
 Territories, 1040, 1052, 1070
 tax, States, 612-3
 tenure and settlement, 743-6, 1152
 Papua New Guinea, 1070
 Northern Territory, 1040
 trusts, 555
 use, rural, 746
 Landforms, Australia, 27
 Lard production, 737
 La Trobe University, 673
 Launceston
 Marine Board, 655
 population, 145
 Law and order, Australian Government expenditure, 491
 enforcement, drugs, 484
 Lead, 934, 953-65
 exports, 976-7
 production, 953-65
 zinc, 934, 979
 Zinc Study Group, International, 947
 Leases and licences, Land Acts, 744
 Leasing, finance companies, 547
 Leather production, 740
 Leave
 annual 286
 long service, 287
- Legal
 status, Aborigines, 1039
 system Australian, 473
 tender, 513
- Legislation
 affecting overseas trade, 301
 anti-dumping, 305
 assurance, 537, 1152
 Australian Parliament, 94
 banking 305, 513
 bankruptcy, 478
 citizenship, 165
 copyright, trade marks, and designs, 494
 exchange control, 305
 finance companies, 545
 immigration, 161
 industrial, 260, 283-7
 insurance, 531
 land, 742, 1152
 mining, 936
 naturalisations, 157
 passed during year, 94
- Legislation—*continued*
 patents, 494
 road safety, 379
 shipping, 352
 war pensions, 111
 workers' compensation, 295
- Legislative
 Assemblies, 77, 91
 Assembly, A.C.T. 1051
 Councils, 77
 provisions, narcotic drugs, 483
- Legitimations, births, 184
 Lengths of roads, 383
 open to the public, 391
- Leprosy (*see* Hansen's disease)
- Letter telegrams, 404, 406
 Lettergrams, 404, 406
 Letters
 of administration, 560
 posted, 401-2
- Level of government, public finance, 620
- Levy
 butterfat, 859
 honey, 828
 wool, 852
- Liabilities
 banks, 519, 521-2, 527
 insurance companies, 537
- Libraries, 1026
 children's and school, 1027
 State, 1027
 University and college, 1027
- Library Service, Northern Territory, 1027
- Licences
 broadcast listeners', 410
 drivers' and riders', 379
 export, 305
 import, 305
 Land Acts, 744
 television stations, 409
 viewers, 410
- Life
 assurance legislation, 537, 1152
 expectation, 191
 insurance, 532
 Act, 1945-1973, 531
 companies, housing loans, 241
 new loans paid over, 538
 offices transacting business, 532
 tables, Australian, 191
- Lighthouses, 364, 1152
 Linseed, 781
 Liquor revenue, 612-3
- Literature
 Board, 1024
 Board of Review, National, 1024
- Live births, number, 178
- Livestock
 and livestock products, 793, 850
 carried on railways, 371
 products, miscellaneous, 826
 Slaughter Levy, 854
 Territories, 1042, 1053, 1074
- Living, cost of (*see* Consumer Price Index)
- Loan
 Fund, Australian Government, 564
 raisings, 621
 transactions and Governments Securities on Issue, 622
 State, 622
- Loans
 Australian Government (*see also* securities on issue), 622-9
 banks, 521-31
 building societies, 556
 conversion and redemption, 623, 631-2
 insurance companies, 538
 International Bank for Reconstruction and Development, 630
 local government, 632-5
 soldier settlement, 745
 various countries, 627-32
- Local
 consumption of butter and cheese, 815
 government authorities, 613
 area, population, dwellings and value of rateable property, 614
 finances, 615-6
 jurisdiction, 613
 telephone calls, 404
- Localities and ports, fisheries, 916
 Long service leave, 287
 Lord Howe Island, 4

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Lotteries, State, 559, 612-3
 Lower courts, 473
 Lupins, 774
- McDonald Islands, 22 1086
 Machines, milking, 811
 MacRobertson Land, 1086
 Macquarie Island, 3
 University, 673
 Magistrates' courts, 473
 powers, 473
- Mail
 air, 394, 396
 contractors, 398
 cost of carriage, 399
 delivery points, 401
 handled, 401
- Main components of outlay
 Australian Government authorities, 572
 State authorities, 609
- Main Roads Department
 New South Wales, 637
 Queensland, 639
 Western Australia, 641
- Maize, 770
 area, production and yield, 771
 exports, 771
 world production, 772
- Major dams and reservoirs, 863
 urban population, 141
- Malaria deaths, 197
 Malaysia, Trade Agreement, 310
- Male
 employment in agriculture, 838
 pensioners, age and invalid, 417
 population, 132, 1067
 wage rates, 263-5, 267, 283
- Malignant neoplasms
 age at death, 198, 201
 deaths, 197-8, 200-1
- Malt, barley, 769
 Maltese migration, 164
 Management, water, 870
 resources, 861
- Manganese, 935
 Manpower, scientific research, 1005
 Manufactured products of mineral origin, principal, 975
- Manufacturing
 census 1968-69, 729
 establishments, definitions, 730-1
 employment, 733
 number by States and Territories, 736
 purchases, etc., 732
 stock, 735
 summary by subdivision, 732
 turnover, 734
 value added, 736
 wages and salaries, 734
 industry statistics, 1901 to 1967-68, 728-9
 from 1968-69, 729
- Manure (see Fertilisers)
 Maps (see Contents, pages vii-xii)
 Mareeba-Dimbulah Irrigation Area, 885
 Marginal dairy farms, reconstruction scheme, 857
- Margins
 cases, 283
 wage (see also National Wage Cases), 283
- Marine
 animal oils, imports and exports, 927
 Boards, Tasmania, 655
 casualties, 364
 industries (see Fisheries)
 insurance, 539
 Science, Australian Institute of, 1010
- Marital status
 labour force, 699
 migrants, 160
 new pensioners, age and invalid, 418
 persons at marriage, 173
 population, 148
- Maritime Industry Commission of Inquiry, 354
 Services Board of New South Wales, 652
- Market assistance, overseas trade, 312
 outlook information agriculture, 841
- Marketing
 apples and pears, 848
 canned fruits, 849
- Marketing—continued
 dairy products, 857
 eggs, 856
 meat, 853
 sugar, 845
 tobacco, 847
 wheat, 841
 wool, 798
- Marriage rates, 172
 Marriages, 172
 age and marital status of persons marrying, 173
 duration and issue, 186
 fertility, 182
 in religious denominations, 174
 registration of, 172
- Married women in the labour force, 696-8
- Masculinity
 births, 179
 population, 136, 146
 selected countries, 154
- Mass immunisation campaigns, 455
- Matches
 excise revenue, 600
 quantity on which excise duty paid, 335
- Materials used in building other than house building,
 wholesale price index, 252
- Maternal deaths, causes, 197-9
 Maternity allowances, 413-4, 421
 Mawson Research Station, 1086
- Meals on Wheels, 431
 Mean population, 139
- Means test
 age and invalid pensions, 417
 widows' pensions, 419
- Measles, deaths, 197
 Measurement of foreign control, mining industry, 968
 ownership, mining industry, 966
- Meat, 853
 and meat products, consumption of, 804
 Board, Australian, 853
 Export charge, 854
 purchase arrangements, long-term with United
 Kingdom, 854
 research schemes, 854
- Mechanisation, sugar cane harvesting, 775
 Media, Department of, Film Branch, 1022
- Medical
 benefits, 436
 expenditure on, 437
 inspection of school children, 463
 services aerial, 460, 1047
 pensioner, 438
 treatment of ex-servicemen and dependants, 118
- Medicines and Drugs
 pharmaceutical benefits, 454
- Melbourne
 and Metropolitan Board of Works, 645
 climatological data, 69
 Harbour Trust, Commissioners, 653
 population, 144
 sewerage and drainage, 645
 University of, 673
 water supply, 645
 Wholesale Price Index, 251
- Members
 of cabinet, 82, 1146
 friendly societies, 557
 Parliament, 87
 pensions, 542
 salaries and allowances, 92
 trade unions, 295-6
- Membership, O.E.C.D., 124
- Mental
 health services, 459, 468
 hospitals, institutions, 459, 468
 expenditure on, 469
 finances, 459, 469
 patients in, 468
- Merchandise trade (see also Trade, merchandise), 316,
 318-9, 325-30
- Merchant vessel construction, 352
 Merino sheep, prohibition of exports, 850
 Metallic ores and metals, prices, 977
 Meteorology of Australia, 28, 1152
 research into, 1007
- Methods of settlement, industrial disputes, 294
 Metric Conversion, 1011
- Metropolitan
 Fire Brigades Board, Victoria, 492
 public libraries, 685
 Water, Sewerage and Drainage, Board, Sydney, 643

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, see page 1153.

- Migrant**
accommodation, 164
education, 660
 child program, 660
 developments in, 660
integration, 166
welfare and education, 166-7
- Migrants, 161**
age distribution, 157
marital status, 160
nationality, 159
occupation, 159
- Migration, 137, 158-62**
advisory, planning and publicity councils, 164
agreements, 155
assisted passages, 163
Australian Government powers, 161
expenditure, 571, 574
internal, survey of, 167
Maltese, 164
net, 137, 157
Offices, Commonwealth, 124
overseas, 158
professional, 165
regulation of, 161
- Military**
College, Royal, 102
defence, 101
expenditure, 98
forces, Australian, 96-104
 emergency reserves, 97
 expenditure, 98
 organisation, 101
 serving overseas, 98
 strength, 96-7
- Milk, average production per cow, 811**
production, value of, 811
utilisation, 812
- Milking machines, 811**
- Mill, production, timber, 908**
- Mine, production, principal metals, 961**
- Mineral deposits, 931, 978**
exploration (other than for petroleum), 970
control, 937
industry, 929
 administration, 936
 Government assistance, 940
 international relations, 946
 recent developments, 978
 research, 944
 private enterprise, 946
 State Government assistance to, 943
 statistics, 947
production, 952
processing and treatment, 974
resources, 933
royalties, 938
sands, 935, 980
- Minerals carried on railways, 371, 374**
control of exports, 939
economic geography, 929
occurrence map, 932
overseas trade in, 975
produced, quantity, 953
value of, 964
Research Laboratories, CSIRO, 945
- Minimum wage**
Federal, 283
rates, 263-8, 283
States, 285-6
- Mining**
accidents, 950
Acts, etc., areas occupied, 937
census 1968-69, 948
 integration with manufacturing, electricity and
 gas, etc., 948
control of, 936
employment, 949
establishments, number, 948
 summary of operations, 948
 value added, 952
exploration, control of, 937
government assistance to, 940
industry, measurement of foreign ownership, 966
 statistics, 948
 stocks, 951
 sub-divisions, 948
 turnover, 950
 wages and salaries, 950
integrated economic censuses, 948
- Mining—continued**
overseas control, 966
ownership, 966
research, 944
review of recent developments, 978
stocks, materials, fuels, etc., 951
Territories, 1042, 1075
value added, 952
- Ministers**
appointment of, 80
Australian Government, 82
number in each House, 80
- Ministries, Australian Government, 81, 1146**
- Mints, 514**
- Miscellaneous products, livestock, 826**
- Missions, overseas, Australia, 128**
trade, 312
- Mitchell Library, 687**
- Mobility, labour, 712**
- Molluscs, 913, 917, 920, 923**
- Monash University, 673**
- Money**
market, short-term, 553
orders, 402
volume of, 515
- Morgan-Whyalla Water Supply Scheme, 650**
- Mortality (see also Deaths), 189**
infant, 195, 200
- Mortgage Bank Department, Commonwealth Bank, 530**
- Mothers**
ages, confinements, 185
duration of marriage, 186
issue, 186
- Motor**
cycles, 377
omnibus services, 375-6
vehicles, 376
 accidents, deaths, 198-9, 202
 drivers' and riders' licences, 379
 new registrations, 378
on register, 377
production, 740
revenue from, 612-3
taxation, 612-3
thefts, 481, 483
usage, survey of, 376
- Mountain systems of Australia, 1153**
- Movement in sheep numbers, 794**
- Multilateral trade agreements, 307**
- Multiple births, 184**
jobholding, survey of, 708
- Municipal services, A.C.T., 1052**
tram and bus services, 375-6
- Munitions supply, 107**
- Murray River Scheme, 872**
- Murrumbidgee irrigation areas, 878**
- Museums, 1024**
- Music**
broadcasting and television, 388-9
Conservatoria of, 661
in Australia, 1021
- Mutton and lamb, 803**
consumption, 804
exports, 805
- Mutual funds, 555**
- Narcotics Bureau, Commonwealth, 487**
- National**
accounts, 497
descriptions of items, 499
estimates at constant prices, 500
reliability of, 501
tables, 502
aspects, water control and conservation, 871
Association of Australian State Road Authorities, 384
 Testing Authorities, 728, 1011
Biological Standards Laboratory, 458
Broadcasting Service, 407
capital account, 481, 498-9
Capital Development Commission, 1051
Coal Research Advisory Committee, 946
Debt Sinking Fund, 629
expenditure gross, 497-8
Film Board, Australian, 1022
Gallery, Australian, 1024
Health and Medical Research Council, 457
health benefits, 416, 433, 453
cash benefits to persons, 433
Heart Foundation of Australia, 460

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, see page 1153.

- National—*continued*
 income, 497
 and expenditure accounts, description of items, 508-11
 Library, 1026
 parks and reserves, Northern Territory, 1046
 Servicemen, re-establishment benefits, 121
 Small Business Bureau, 1012
 Standing Control Committee on Drugs of Dependence, 484
 Stevedoring Industry Conference, 353
 Trusts, Australian, 1019
 University, Australian, 673
 Wage Cases, 1967, 283
- Nationality
 and Citizenship Act, 165
 of migrants, 159
 population, 149
 shipping, 357, 363
- Native (*see* Aboriginal, etc., Indigenous)
- Natural
 disasters, grants to States, 581
 forests, 899
 gas, 935, 979
 liquids, 935
 pipeline, 585
 increase of population
 Australia, 137
 selected countries, 155
- Naval
 aviation, 99
 College Royal Australian, 100
 defence, 99
 expenditure, 98
 training establishments, 100
- Navigational aids, aeronautical, 397
- Navy, (*see also* Royal Australian Navy), direct entry into, 100
- Neoplasms, deaths, 197-8, 200-1
- Nephritis, deaths, 197
- Net movement, Government securities on issue, 622
- New buildings, value of, 220
 capital raised, Australian companies, 551
 England, University of, 673
 fixed assets, expenditure on, States, 610-11
- New Guinea (*see* Papua New Guinea),
- New South Wales—Queensland Border Rivers Agreement, 874
 University of, 673
 Water Conservation and Irrigation Commission, 876
 States, constitutional provisions for, 20
- New Zealand, 2, 4,
 Australian Free Trade Agreement, 309
- Newcastle
 population, 144
 port facilities, 653
 University of, 673
 water supply sewerage and drainage, 644
- Newspapers, posted, etc., 401-2
- Nickel, 935, 980
- Non-government schools, 664
- Non-official post offices, 398
- Norfolk Island, 22, 1057
 population, 153, 1057
- North Australia, railways, 365, 1046
- Northern Territory, 5, 27, 1037
 Aborigines, 151, 1039
 education, 1039, 1048
 administration and legislation, 1037
 agriculture, 1041
 air services, 1047
 area, etc., 6, 27, 1037
 climate, 1038
 diseases, notifiable, 469
 dwellings, 206-7
 education, 1039, 1048
 electricity supply, 994
 factories, 1045
 fauna and flora, 1038
 finance, 1050
 fisheries, 1044
 land tenure, 744-6
 Library Service, 1027
 livestock, 1042
 mineral production, 1042
 national parks and reserves, 1046
 outlay on education, 683
 pastoral industry, 1041
- Northern Territory—*continued*
 physiography, 1038
 police and prisons, 489-90
 population, 132-6, 139, 1039
 postal services, 1048
 production, 1040
 railways, 1046
 roads, 1047
 schools, 1039, 1048
 shipping, 1047
 tourism, 1045
 trade, transport and communication, 1046
 training of apprentices, 1049
 transfer to the Australian Government, 5, 1037
 water resources, 896
- Note issue, Australian, 513, 518, 1151
- Notes
 Australian, 513
 in circulation, 513
- Notifiable diseases, 469
- Number of dwellings, 205
 rooms, dwellings, censuses, 209
- Numbers, cattle, 805
 livestock, 793
 pigs, 818
 poultry, 820
 sheep, 793
- Nuptial births, 187
- Nursing
 Associations, Bush, 463
 homes, 464, 466
 benefits, 435
- Nutrient intake, level of, 1098
- Nutrients available for consumption estimated, 1098
- Oats, 764
 area production and yield, 765
 exports, 766
 world production, 766
- Objective measurement of wool, 853
- Occupation of
 Crown lands, 745
 overseas arrivals and departures, 159
- Occupational status, 690
- Occupied private dwellings, 205-11
 facilities, 210
 nature of occupancy, 208
 self-contained flats, 210
- O.E.C.D. functions, 124
 membership, 124
- Offences reported to police, 481
- Officer training, army, 102-3
- Offices transacting life insurance, 532
- Official publications of the Australian Bureau of Statistics, 1116, 1157
- Oil (*see also* Petroleum)
 eucalyptus, 911
 imports, 976
 mineral (*see* Petroleum)
- Omnibuses, motor, 375
- Open plan schools, 658
- Opera in Australia, 1021
- Operating surplus, gross, public enterprises, 604
- Operations, air transport, 394, 396
- Opposition, Leaders of, 83
- Orchard fruit, 787
- Ordnance production, 107
- Ordinary business, life insurance, 533-6
 time and overtime earnings, 272
- Ores and concentrates exported, metallic contents, 977
- Organisation for Economic Co-operation and Development (O.E.C.D.), 124
- Organisations, cultural, 1017
 industrial research, 1011
- Orography of Australia, 27, 1153
- Other urban population, 141
- Outflow of private Australian investment in companies overseas, 340
- Outlay
 and receipts, all public authorities, 617
 State authorities, 607-9
 by economic type and function, Authorities of the Australian Government, 569
 main components of, Authorities of the Australian Government, 572
 on Aboriginal advancement, Australian Government, 442
 education, all public authorities, 681
 internal territories, 683
- Output and capacity, hydro-electric system, Tasmania, 993

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Overdraft limits, bank, 525
 Overseas
 air services, 395
 arrivals and departures, 156
 Broadcasting Service, 408
 cable and radio communication, 405
 cargo by country of registration of vessels, 362
 shipping provisions, 353
 construction contracts, 312
 exchange rates, 515
 regulations, 305
 investment in Australia by private investors, 335
 private, 335
 marketing, wine, 850
 migration (*see* Migrants, migration)
 mineral prices, average daily, 977
 representation, 128
 shipping (*see also* Shipping), 356
 country of registration, 356
 students universities, 677
 Telecommunications Commission, 405
 trade (*see also* Trade)
 dairy products, 816
 hides and skins, 826
 honey and bees-wax, 828
 horses, 826
 market assistance, 312
 minerals, 975
 poultry products, 825
 representation, 130
 sheepskins, 801
 transactions 301
 travel, 1033
 Overtime and ordinary time earnings, 272
 Overview of scientific research, 995
 Oysters, 913, 923
- Packets, etc. posted, 401-2
 Paper and wood pulp 909
 Paper board production, 909
 Papua (*see* Papua New Guinea),
 Papua New Guinea, 1060
 administration, 1068
 agriculture, 1071
 animal industry, 1074
 banking, 1085
 censuses, 1067
 climate, 1060
 Co-operative societies, 1086
 crops, 1071
 education and health, 1082
 electricity Commission, 1077
 supply, 1077
 finance, 1083
 fishing, 1075
 housing, 1081
 hydro-electric potential, 1078
 indigenous agriculture, 1073
 labour, 1080
 judiciary, 1070
 livestock, 1074
 population, 153, 1067
 characteristics, 1068
 preference rates trade, 303
 rural production, non-indigenous, 1071
 secondary industries, 1076
 soils, 1070
 survey of indigenous agriculture, 1073
 Paramedical services, 460
 Parasitic diseases, deaths, 197
 Parcels posted, 401-2
 Parents, ages, confinements, 185
 Parliament, 7
 Australian, 7, 77, 87
 dissolution, 14, 84
 enactments, 94
 members, 87-9
 membership, 84
 ministers in each House, 80
 powers of, 12
 Parliamentary
 government, cost of, 93
 reports and papers, 1120
 salaries of members, 83, 92
 scheme of, 77
 Library, Australian, 1027
 pension and superannuation schemes, 542
 Parliaments, States, 77, 91
 Participation, international scientific organisations, 1013
 United Nations agencies, 124
 Partnerships and trusts, 593
- Passenger-journeys
 omnibuses, trams, 375-6
 railways, 370
 Passenger-kilometres
 airways, 394, 396
 railways, 370
 Passengers
 aircraft, 394, 396
 Passports, 165
 Pastoral
 finance, companies, 550
 Patent Office Library, 1026
 Patents, 494
 Pathology Laboratory Service, 456
 Patients in hospitals, 465
 Payments, balance of, 316, 341
 to policy-holders, life insurance, 535
 Pay-roll tax, 586, 602
 Peanuts, area and production, 781
 Pearls, pearl-shell, 914, 917, 920, 923
 exports, 927
 Pension and superannuation schemes
 government and semi-government, 540
 private, 543
 Pensioner medical service, 438
 Pensioners
 age and invalid, 416
 war and service, 111, 116
 Pensions
 age and invalid, 416
 and allowances war, 112
 Australian, portability, 415
 double orphans, 420
 members of Parliament, 542
 rates, 416
 reciprocity with Britain, 415
 New Zealand, 415
 war and service, 111, 116
 widows' 413-4, 418
 Persons working on new buildings, 223
 Perth
 climatological data, 63
 population, 145
 water supply and sewerage, 650
 Petitions filed, divorce, 175
 Petrol
 excise revenue, 600
 quantity on which excise paid, 335
 Petroleum, 934, 979
 and natural gas, Northern Territory, 1043
 exploration, 973
 control of, 937
 imports, 319, 325-31
 summary of exploratory wells drilled, 974
 Pharmaceutical benefits, 453
 Philippines trade agreement, 310
 Phillip, Captain, 3
 Phosphate, 935, 980
 Commissioners, British, 1088
 deposits in Australia, 935, 980
 imports, 832
 production, 1088
 Physical geography (physiography)
 Australia, 25-7
 Territories, 1038, 1057, 1060, 1086-9
 Pig distribution, Australia, 818
 industry, 818
 research, 818, 855
 numbers, 818
 products, exports, 820
 slaughterings, 818
 value, 819
 Pig-iron and steel production, 739, 741
 Pigmeat
 production 818
 Pigs in Territories, 1042, 1074
 Pilots, air, licences, 397
 Pipeline, natural gas, 585
 Planning and procurement, Department of Supply, 108
 Plant
 quarantine, 452
 Plantation, forest, 901, 1044, 1053, 1075
 softwood, 901
 Plywood, produced, 908
 Pneumonia, deaths, 197, 199
 Poison, deaths, from, 202
 Poker machine tax 612-3
 Police, 488
 College, Australian, 490
 Australian, 490
 duties, 488

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Policies relating to Aboriginal people, Australian Government, 1039
- Poliomyelitis, 197, 469
 campaign against, 455
 deaths, 197
- Pollard production, 740
- Population, 131
 Aboriginal, 150
 age distribution, 147
 birthplace, 148
 by class of dwelling, 207
 censuses, 131-4, 1067
 1966 and 1971 compared, 147
 cities, principal world, 146
 countries, selected, 153
 density, 136
 international statistics, 154
 distribution, 140
 elements of increase, 137
 employment status, 692
 estimates, 135
 fertility, 178
 general characteristics, censuses 1966 and 1971, 147
 geographic distribution, 140
 increase, 134, 137
 natural, 137
 net migration, 137, 139
 intercensal increases, 134
 international statistics, 153
 marital status, 148
 married women in the work force, 696-8
 masculinity, 136, 146
 international statistics, 154
 mean, 139
 nationality, 149
 occupational status, 690-3
 period of residence, 149
 projections, 152
 proportions by area, 136
 rates of increase, 137
 international statistics, 154
 religion, 149
 reproduction, 182
 rural, 141
 selected centres, 142
 countries, 154
 sex distribution, 132-6, 146, 1067, 1153
 survey, 693
 supplementary collections, 693, 706-19
- Territories (see also Censuses), 132-6, 153
 urban, 141-5
 centres, principal Australian, 143-5
 world, 154
- Port Augusta-Alice Springs Railway, 1046
- Port
 charges, New South Wales, 652
 Kemplia, 653
- Portability of Australian pensions, 415
- Portland Harbour Trust, 654
- Ports
 and harbours, 359, 652
 depth of water, 364
 distances by sea, 364
 principal Australian
 cargo movements at, 359-60
 overseas trade at, 332
 shipping at, 360
 tides, 364
- Post offices, 398
- Postal
 articles handled, 401-2
 communications, Northern Territory, 1048
 facilities, 398
 orders, 402
 services, 401
- Postmaster-General's Department, 397
 carriage of mails, cost, 399
 employees, number, 398
 finance, 398
 fixed assets, 400
 mail contractors, 398
 money orders and postal orders, 402
 research, 398
 telephones, 403-4
- Posts, telegraphs, telephones, cable and radio communication, 397, 1048, 1079, 1088-9
- Post-secondary student assistance Schemes, 662
- Potassium fertilizers, imports, 832
- Potatoes,
 area, production and yield, 785
 consumption and export, 786
- Potential development, surface water, 863
- Poultry
 industry, 820, 855
 numbers, 820
 products overseas trade in, 825
 slaughtered, dressed weight, 821
 value, 822
- Power
 electric (see Electric power)
 stations electric, 736-7
- Powers
 constitutional
 as to commerce, 301
 migration, 161
 of magistrates, 473
- Precipitation (see also Rainfall), 28
- Preference
 British, 302, 309
 Canadian, 302, 309
 New Zealand, 302, 309
 Papua New Guinea, 302
- Preferential tariffs, 302, 1153
- Pregnancy, complications of, deaths, 198-9
- Pre-history, Australia, 1
- Prematurity (see Immaturity)
- Premiers, State, 83
- Premiums
 general insurance, 539
 life insurance, 533, 535-6
- Pre-school
 education, 662-3
 teachers training of, 669
- Pre-schools Committee, Australian 662
- Preservation, water catchments, 866
- Preserved fruit, 789
- Press telegrams, 404
- Price
 and value, wool, 798
 Australian Tobacco, 847
 Indexes and index numbers
 consumer, 244
 crop production, 1093
 export, 258
 retail, 243
 international comparisons, 250
 wheat, 759
 wholesale, 251
- Pricing Australian crude oil, 941
- Prices
 butter and cheese, wholesale, 814
 gold, 514
 Justification Tribunal, 298
 minerals, average daily, domestic and overseas, 977
 sugar, 777
- Primage duty, 305, 599
- Primary
 and secondary education, developments in, 657
 industries,
 production, taxes and charges, 601
 value of production, 1090
- Prime Ministers, 81
- Principal crops and pastures fertilised, 829
- deposits, Australian minerals, 931
 fruit crops, 788
 importing countries, wool, 802
 metals produced, 961
 products manufactured of mineral origin, 975
- Principles for measuring output of minerals, 953
- Prisons, prisoners, 490-1
- Private
 Australian overseas investment, 335
 dwellings, 208-11
 employees, 721
 enterprise research, mining industry, 946
 finance, 513
 forestry, 904
 hospitals, 466
 overseas investment, 335
 explanatory notes, 335-6
 in Australia, 335
 railways, 374
 schools, 664
 superannuation schemes, 543
 trading banks, 516, 520
- Probate duties, States, 612-3
- Probates, 560
- Processed milk products production, 813
 vegetables, 784
 wool, estimated consumption in Australia, 800

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, see page 1153.

- Processing and treatment, minerals, 974
 Proclaimed or declared roads, 383
 Product, gross domestic, 497, 502
 Production (*see also* Value of production)
 account, domestic, 499
 aircraft, 107
 and consumption, wine and brandy, 790
 supply, electricity, 981-94
 trade, vegetables, 783
 utilisation, sugar, 777
 beef and veal, 807
 butter, cheese and processed milk products, 813
 crops, 751
 egg pulp, 824
 eggs and egg products, 823
 fisheries, 919
 forestry, 907, 1044, 1053, 1075
 honey and bees-wax, 827
 indexes of (*see* Agricultural, Factory, Production)
 manufacturing, 738-42
 milk, 810
 mineral industry, 952
 munitions, 107
 mutton and lamb, 803
 pigmeat, ham and bacon, 818
 tobacco, 778
 valuation of Australian primary, 1090
 wheat, 757
 wool, 796
 Productivity action, manufacturing industry, 728
 group movement, 1012
 Progress of cultivation, crops, 747
 Prohibition of imports, sheep, 850
 Project SCORE, funds and objectives, 997
 Projections of the population, 152
 Promotion, wool, 852
 Protection of the environment, 1006
 Public
 debt Commonwealth and State (*see* Securities on issue)
 municipal and semi-government authorities, 634-5
 States, 632-3
 expenditure on, 631
 taken over by Australian Government, 622
 enterprises, gross operating surplus, 604
 finance, 563
 by level of government, 620
 cash benefits to persons, 574
 health, 449, 1152
 and Tropical Medicine, School of, 457
 legislation and administration, 461
 hospitals, 464
 fees charged, 434
 revenue and expenditure, 466
 libraries, 1026
 museums, 1024
 sector borrowing, 621
 Service superannuation funds, 540
 Publications, official, Australian Bureau of Statistics, 1116, 1157
 Publishing, Australian book, 1025
 Pulp, wood, 909
 Pupils, schools (*see* students)
 Purchases and transfers in, mining, 951
 of freehold land, 744
 Qantas Airways, 395
 Quality water, 866
 Quantity of minerals produced, 953
 Quantum indexes
 crop production, 1093
 Quarantine, 449-53
 animal, 451
 human, 449
 plant, 452
 Quarrying, construction materials, 948
 Queanbeyan-Canberra railway, 1054
 Queen Elizabeth, 77
 Queensland
 Coal Board, 939
 Fire Brigade Boards, 492
 University, 673
 water resources control, 883
 Queensland-New South Wales Border Rivers Agreement, 874
 Quotas, wheat delivery, 844
 R.A.A.F. (*see* Royal Australian Air Force)
 Racing, State taxation, 612-3
 Radiation
 global, 54
 Laboratory, Australian, 457
 Radio (*see also* Broadcasting), 407
 apparatus production, 741
 coast stations, 407
 communication, 407
 licences, 410
 stations, 408, 1048
 Radio 'Australia', 408
 Radiocommunication stations authorised, 407
 Railways, 364
 accidents, 202
 Australian Capital Territory, 365, 1054
 development, 364, 374
 employees, 374
 finance, 610-11
 gauges, 365-8, 374, 1046, 1154
 standardisation, 366, 1154
 government goods and livestock carried, 371
 route kilometres open, 365-6
 summary of operations, 368
 North Australia, 365, 1046
 passenger-journeys, etc., 370
 private, 374
 freight carried on, 374
 rolling stock, 369
 salaries and wages paid, 374
 traffic, 364, 370-1, 374
 working expenses, 372-3
 Rainfall, 28-38
 Australian capitals, 63-70
 distribution, 28-38
 intensity, 38
 Papua New Guinea, 1062
 remarkable falls, 38
 seasonal, 33
 States and Territories, 28-38, 63-72, 1038, 1057, 1060
 1086-9
 Randall Committee on wool, 850
 Rape seed, 782
 Rates and conditions, widows' pensions, 418
 Rates fertility, 179
 of subsidy, butter and cheese, 815
 Raw cotton, Bounty Act, 848
 Rebates, sugar, 846
 Receipts, all Australian Government funds main components, 565, 585
 and outlay, all public authorities, 617
 Australian Government authorities, 565
 State authorities, 607-9
 Recent developments, mineral industry, 978
 Reciprocal social services agreements with other countries, 415
 Reconstruction
 and Development, International Bank, for, 630
 Scheme, Fruitgrowing, 849
 Marginal Dairy Farms, 857
 rural, 839
 Red Cross Blood Transfusion Service, 460
 Redemption loans, 623, 631-2
 Re-exports, 315
 Referendums, 89-91
 Registered articles posted and received, 401-2
 building societies, housing loans, 241, 556
 hospital benefits organisations, 435
 Registration
 births, deaths and marriages, 171-2, 178, 189
 copyright, 495
 land titles, Papua New Guinea, 1070
 motor vehicles, 377
 trade unions, 296
 Regular air services within Australia, 393
 Regulation of agriculture, 839
 Rehabilitation service, Australian, 427
 Relations with Asia and the Pacific, 123
 Britain, 124
 Religions of population, 149
 Religious marriages celebrated, 174
 Rental activities, government dwellings, 236
 Repatriation, 111
 benefits, 111
 Commission, 111
 expenditure on, 111
 hospitals, 118, 467
 in-patients treated, 119
 out-patients treated, 119
 staff, 118
 Reports, Departmental and Parliamentary, 1120
 Representation, diplomatic, 128
 Representatives
 consular, 128
 diplomatic, 128-9
 House of, 9, 77, 88-9, 114-7
 trade, 130, 311-2

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Reproduction rates, 182
 Research
 agricultural, 840
 and development, broad features of, 996
 extension, tobacco, 848
 Antarctic, 1009
 by industrial organisations, 1011
 dairy industry, 858
 effort, CSIRO, 1008
 Establishment, Weapons, 106
 fisheries, 915
 forestry, 903
 in Australia, 995
 industry, 1010
 universities and colleges, 1012
 Laboratories, Aeronautical, 106
 meteorology, 1007
 mineral industry, 944
 pig industry, 818, 855
 poultry industry, 856
 schemes, meat, 854
 scientific, 995
 silvicultural, 903
 social science, 1012
 water resources, 865
 wheat, 841, 845
 Reservations
 Crown Lands, 744
 forest, 744
 Reserve Bank, 515, 518
 exchange control, 305
 liabilities and assets, 519
 net profit, 520
 Note Issue Department, 513, 518
 Reservoirs and dams, major, 863
 Resources Development Bank, Australian, 530
 development, science and technology, 1006
 minerals, 933
 Responsibility for roads, 390
 Restrictive Trade Practices Act, overseas cargo shipping, 354
 Retail
 establishments, censuses, 1101
 price index numbers
 Consumer, 243
 international comparisons, 250
 tabular statements, 246
 price indexes
 'C' Series, 243
 Consumer, 244
 previous series, 243
 sales
 commodity groups, 1044
 instalment credit, 547-9
 of goods at constant prices, 1105
 value of, 1104
 Returned soldiers
 medical treatment, 118
 settlement, 745, 1154
 Revenue
 from premiums, life insurance, 535
 motor vehicles, 612-3
 omnibus services, 375-6
 tramway and bus services, 375-6
 Rheumatic fever, deaths, 197
 Rice area production and yield, 772
 River Murray Waters Agreement, 892
 Rivers of Australia, 27, 1154
 Road
 Research Board, 384
 safety legislation, 379
 traffic accidents, 198-9, 202, 379
 Roads, 383, 635-43
 and bridges, expenditure, 610-11, 636-42
 Australian Government aid, 582, 636
 Bureau, 385
 composition of, 383
 future development of, 392
 in Australia, history of, 385
 Rockhampton
 population, 145
 Rolling stock, railways, 369
 Royal
 Australian Air Force, 97, 103
 Army Nursing Corps, 103
 Mint, 514
 Navy, 97, 99
 Commission
 Monetary and Banking Systems, 516
 Flying Doctor Service, 460
 Military College, 102
 style and titles, 77
 Royalties, mineral, 938
 Rubella immunisation, 456
 Rural
 advances of pastoral finance companies, 550
 Credits Department, Reserve Bank, 518
 debt, 551
 holdings, employment on, 696, 838
 farm machinery on, 837
 growing wheat, 757
 land utilisation, 747
 number and area, 746
 tractors on, 837
 industry, 743
 land classification by size and activity, 747
 population, 141
 reconstruction, grants to States, 581
 Reconstruction Scheme, 839
 Safflower, 782
 area and production, 783
 Salaries, Parliamentary, 83, 92
 Sale of Crown lands, 744
 Sales
 of new tractors for agricultural purposes, 837
 Tax, 586, 600
 Sands, mineral, 935, 980
 Savings
 banks (*see* Banks)
 housing loans, 240
 Grant Scheme, Home, 230
 Sawmills, 906
 Scallops, 913, 923
 Scarlet fever deaths, 197
 Scholarships and bursaries, 662
 School
 age, 667
 and university leavers, survey of, 706
 Australian Forestry, 904
 broadcasting and television, 408-9
 children, medical and dental inspection of, 463
 curricula, 659
 dental clinics, 463
 of Public Health and Tropical Medicine, 457
 pupils (*see* Students)
 savings banks, 527
 students, 664-5
 age of, 667
 system, government schools, 657
 teachers, 665
 Schools (*see also* Education), 664-8
 Commission, 657
 denominational, 665
 enrolments, 664
 government, 664
 grants to States, 686
 health services to, 464
 infants, 662
 isolated areas, 659
 kindergarten, 662
 non-government, 664
 number, 664-5
 open plan, 658
 primary, 666
 secondary, 666
 State, 664
 technical, 668
 Territories, 1048, 1054, 1082
 Science
 and Technology, 995
 Australian Government expenditure, 1000
 co-ordinating and advising bodies, 996
 funding of, 997
 resources development, 1006
 State Government expenditure, 1003
 Australian and New Zealand Association for the
 Advancement of, 997, 1013
 Scientific
 and Industrial Research Organization, Common-
 wealth, 1007
 research, 1005
 manpower engaged, 1005
 overview of, 995
 Scope, Australian Bureau of Statistics, 1115
 SCORE funding, 997
 Seasonal rainfall, 33, 74-5
 Seasons, 33, 74-5
 Seat of Government, 5, 1051, 1154
 SEATO, 123
 Secondary education, student assistance, 662
 industries, Papua New Guinea, 1076

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Sector accounts, 498
- Securities, on issue, Australian Government and State, 622
 net movement in, 622
 on behalf of the States, 631
- Sedimentary basins, 930
 ground water, 867
- Seizures, drugs, 488
- Select committee on Drug trafficking and abuse, Senate, 488
- Selected population centres, 142
- Semi-government authorities, 635
 finance, 632
- Senate, 8, 87
- Senior secondary colleges, 658
- Sequestrations, bankruptcy, 478
- Serum Laboratories, Commonwealth, 456
- Service pensions, 116
 classes of, 117
 rates and allowances, 116
- Services
 air (*see* Air services)
 Canteens Trust Fund, 122
 Colleges, 677
 overseas telecommunication, 405
 scientific and technological information, 1007
 welfare, 413
- Settlement
 closer, 745
 land, 745
 Norfolk Island, 1057
 returned soldiers, 745, 1154
- Sewerage, 643-52
- Sex distribution of population, 132-6, 146, 1067
- Sheep, 793
 classification, age, sex and breed, 794
 distribution, Australia, 793
 imports and exports, regulation of, 793
 in States and Territories, 793
 slaughtered, value, 803
- Sheepskins, exports, 801
- Sheltered employment allowance, 427
- Ship construction and repairs, Royal Australian Navy, 100
- Shipbuilding Board, Australian, 352
- Shipping, 352
 cargo, 359
 casualties, 364
 Commission, Australian Coastal, 352
 construction, 100, 352
 control, 352
 freight rates, 364
 interstate, 357
 legislation, 352
 Line, Australian National, 352
 losses, 364
 nationality, 356, 363
 overseas, 356
 principal ports, 359
 statistics, collection and presentation, 355
 Territories, 1047, 1058, 1079
 tonnage, world, 363
 total movement, 356
 units of measurement, 356
- Ships, registered in Australia, 363
- Ships' and aircraft stores, 351
 of the Royal Australian Navy, 99
- Shops, new buildings, 221
- Short-term
 money market, 553
- Sickness benefits, 413-4, 425
 friendly societies, 557
- Siding Spring Observatory, 1014
- Silage, area and production, 774
- Silvicultural research, 903
- Sinking Fund, National Debt, 629
- Slaughter Levy, livestock, 854
- Slaughterings
 cattle, 807
 pigs, 818
 poultry, 821
 sheep, 803
- Snowfall, 40
- Snowy Mountains Hydro-electric Scheme, 875, 982
- Soap production, 741
- Social science research, 1012
 security, benefits provided, 415-6
 cash benefits to persons, 413-4
 services, expenditure on, 413-4
 benefits, 413
 services, reciprocal agreements with other countries, 415
 survey of age, invalid and widow pensioners, 443
- Welfare Commission, 447
 voluntary agencies, 447
- Societies
 building, 241, 556
 co-operative, 558, 1086
 friendly, 557, 1083, 1152
- Sodium nitrate, imports, 832
- Softwood plantations
 Australian Government loans for expansion, 902
- Softwoods, 900-3
- Soil
 conservation, 829, 833
 improvement, 829, 833
- Soils of Australia, 829
- Soldiers' Children Education Scheme, 120
 land settlement, 745, 1154
- Sorghum, 770
- Sources, ground water, 867
 of funds for research, 998
 of supply, world wool, 802
- South Australia Department of Marine and Harbours, 654
 Fire Brigades Board, 493
- Sovereign, The, 77
- Soybeans, 774
- Space projects, Australian participation, 105-7, 1014
- Special
 accounts of trading banks with Reserve Bank, 519, 522
 benefits, social services, 425
 financial assistance grants, 579
 grants to States, 579
 programs for Aborigines, 1040
 schools for Aborigines, 1039, 1049
 trade, 315
- Specie and bullion, imports and exports, 333
- Specific purpose payments to States, 580
- Spirits
 excise revenue, 600
 quantity on which excise paid, 335
- Stabilisation
 Fund, Dairying Industry, 856
 Wheat, Government support for, 843
 plan
 egg industry, 855
 wheat, 842
- Staff College, Army, 102
- Stamp duty and tax, A.C.T. 598
 duties, States, 612-3
- Standard
 hours of work, 267
 Industrial Classification, Australian, 730, 948
 times in Australia, 27
- Standardisation of railway gauges, 366, 1154
- Standards
 Association of Australia, 727, 1011
 Laboratories, Defence, 106
 wheat, 755
- State
 accounts, 606
 and Australian Government finance, 563, 606
 local authorities, outlay on education, 684
 Territory authorities and agencies, housing
 purchase, 236
 authorities, finance, 606
 receipts and outlay, 607-9
 banking legislation 517
 basic wages, 283
 borrowings, 622
 Consolidated Revenue Funds, 606
 debts taken over by Commonwealth, 19
 educational systems, 657
 Electricity Commission of Queensland, 989
 Victoria, 988
 Western Australia, 992
- expenditure, 607, 609
 certain welfare services, 442
 education, 685
 health, 609-11
 hospitals, 466
 railways, 610-11
 roads and bridges, 610-11, 637-42
 water supply, etc., 610-11, 643-52
- finance, 606
 financial assistance from Australian Government, 577-85
 Forestry Departments, 903
 Government assistance, mineral industry, 943
 Governors, 79
 Highways Trust Fund, Tasmania, 642
 housing authorities, 233
 industrial arbitration legislation, 262
 tribunals, 262
 lotteries, 559, 612-3
 Ministers, 80

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- State—continued**
 Parliaments, 91
 railways, 364-74
 responsibilities in education, 657
 revenue, 607, 611
 Australian Government payments, 577-85
 hospitals, 466
 taxation, 606, 611
 Rivers and Water Supply Commission, Victoria, 880
 roads, bridges, etc., 635-43
 savings banks, 527
 schools, 664
 tramway and bus services, 375-6
- States**
 Agents-General, 129
 areas, 6, 27
 constitutions, 19
 dates of constitution as colonies, 3-5
 Grants (Housing) Act 1971, 226
 loan transactions, 622
 local government authorities, 613
- Statistical**
 conferences, 1114, 1154
 organisation in Australia, 1114
 publications of Australia, 1116, 1154
 summary, Australia, 1121
- Statistics**
 Australian Bureau of, 1114, 1154
 fisheries, presentation of, 917
 mineral industry, 948
- Steel production (see also Iron), 739, 741**
- Stevedoring Industry Authority, 353**
 Charge, 603
 Conference, 353
- Stillbirths, 188**
- Stocks**
 manufacturing establishments, 735
 mining industry, 955
 of buildings, intercensal estimates of, 224
 cereals, etc., on farms, 834
 wheat, 760
- Storage, wheat, 756**
- Storages, water, Victoria, 881**
- Stores**
 and transport, government, 108
 ships' and aircraft, 331
- Strikes and lock-outs (see Industrial disputes)**
- Students**
 enrolled, all schools, 664-5
 financial assistance, 662
 full and part-time, universities, 674
 school, 664
 technical, 668
 trained under aid program, 127
 universities, 673-4, 677
- Subscriber trunk dialling, 404**
- Subsidies and bounties**
 Australian Government outlay on, 576
 gold, 576
 primary producers, 576
- Subsidised Health Benefits Plan, 438**
- Succession duties, 612-3, 619**
- Sugar**
 agreements, 845
 bulk handling, 775
 cane, 775, 845
 and sugar production, 775
 area under, 775
 harvesting, mechanisation, 775
 yield, 776
 consumption, 777
 exports, 778
 to the United States of America, 846
 Industry Concession Committee, 846
 prices, 777
 production—and utilisation, 775
 rebates, 846
- Suicides, 198-9, 202**
- Summary, educational institutions, 664**
 medical benefits, States, 437
 of exploratory wells drilled petroleum, 974
 operations, mining industry, 948
 receipts and outlay, Authorities of the Australian Government, 568
 waterworks, Victoria, 880
- Sunflower seed, 783**
- Sunshine, 52, 63-70**
 at the capital cities, 63-70
- Superannuation**
 business, life insurance, 533-6
 Fund, Australian Government, 540
 schemes, coal-mine workers, 543
 Government, etc., 540
 Parliamentary, 542
 private, 543
 with life insurance offices, semi-government, 541
 survey of, 717
- Superior courts, 15, 476**
- Superphosphate, 830**
- Supervision and care of infant life, 462**
- Supplies, ground-water, 867**
- Supply Department, 105**
 expenditure, 109
- Supporting mother's benefit, 420**
- Surface and groundwaters, conjunctive use of, 868**
 supplies, water, 862
 water, potential development, 863
 variability of flow, 862
- Surrenders, life insurance, 534**
- Survey and Comparisons of Research Expenditure (SCORE), 997**
- Survey of**
 age pensioners, 1971, 443
 characteristics of unemployment benefit recipients, 446
 child care, 715
 ex-service personnel, widows and children, 122
 income distribution, 274
 internal migration, 167
 leavers from schools, universities and other educational institutions, 706
 motor vehicle usage, 376
 multiple job holding, 708
 pensioners, 444
 persons covered by hospital and medical expenditure assistance schemes, 438
 population, 693
 relative ages of married age pensioners and wives, 443
 superannuation, 717
 unemployment benefit recipients, 446
 wage rates earnings and hours, 269
- Surveys of weekly earnings and hours comparability of results, 270**
 definitions, 270
- Swiss Loans, 627-9**
- Sydney**
 climatological data, 67
 Harbour Bridge, 638
 population, 144
 Port of, 653
 University, 673
 water supply and sewerage, 643
- Symbols used, xv**
- Syphilis, deaths, 197**
- Table grapes, 792**
- Tables of benefits, public hospitals, 434**
- Tallow,**
 consumption in factories, 826
 production, 741
- Tariff**
 Board, 306
 Customs, 301, 1151
 general, 301
 negotiations, international, 307
 Special Advisory Authority, 307
- Tariffs**
 and Trade, General Agreement on, 307
 preferential and reciprocal, 301, 1153
- Tasmania**
 State Highways Trust Fund, 642
 University of, 673
- Taxation**
 Australian Capital Territory, 604
 concessional deductions, 588
 local government, 615-6
 motor vehicles, 612-3
 Northern Territory, 603
 Papua New Guinea, 1085
 receipts, Australian Government, 565, 585
 States, 606, 611
 Taxes and charges, primary production, 601
- Tea consumption, 1027**
- Teachers education, number of students, 669**
 tertiary, developments in, 660
- Teachers**
 colleges, grants to States, 687
 education, 669
 primary schools, 669-70
 private schools, 665
 State schools, 665

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, see page 1153.

- Teachers—*continued*
 technical schools, 669
 training colleges, 669
 university, 676
- Teaching staff, technical and further education, 669
 Universities, 676
- Technical
 and further education, 661
 teachers, 669
 education, 668
 grants to States, 686
- Technology
 and science, 995
- Telecommunication services, 402, 405
- Telecommunications, broadband systems, 402
 development of in Australia, 405
- Telegram traffic, internal, 404
 international, 406
- Telegrams dispatched, 404
- Telegraph, revenue, 399
 services, international, 406
 traffic, internal, 404
- Telegraphs
 Northern Territory, 1048
- Telephone, 403-4
 and telex traffic international, 407
 exchanges, 403
 rental concessions, pensioners, 432
- Telephones, 403-4
 development of, 405
 local calls, 404
 revenue, 399
- Teletype exchange service (telex), 405
- Television, 409
 colour, 409
 legislation, 409-10
 licences
 stations, 409
 viewers, 410
 programs, 409
 services, 409
 stations, 409
- Telex network, 405
 traffic, 405
- Temperate zones of Australia, 27
- Temperature, 40
 Australian capitals, 63-70
 maximum daily, 44
 minimum daily, 44
- Temporary Assistance Authority, 307
- Terra Australis, 1
- Territories
 Australian, 6, 22-3, 1037
 electric power generation, 994
 external, vital statistics, 202
 finance, 1050, 1056, 1059, 1083
 occupied dwellings, 206
- Tertiary education, teachers, developments in, 660
 institutions, developments in, funding of, 660
- Tetanus, 469
- Theatre in Australia, 1020
- Therapeutic substances, pharmaceutical benefits (*see*
 medicines)
- Thunder, storms and hail, 38
- Tides at main ports, 364
- Timber
 mills, 908
 overseas trade, 320, 910-11
 Papua New Guinea, 1075
 reserves, 744
 species, 899
 types and uses, 899-900
- Times, standard in Australia, 27
- Tin, 935
 Agreement, International, 947
 mining, 935
- Tobacco, 778, 847
 Advisory committee, 847
 area and production, 778
 Board, Australian, 847
 excise revenue, 600
 factories, 848
 imports and exports, 779
 industry charge, 601
 marketing, 847
 quantity on which excise paid, 335
 research and extension, 848
- Total expenditure, life insurance, 536
 on research, broad features of, 996
 movement, shipping, 356
 revenue, life insurance, 536
- Total wages, Federal awards, 283
- Totalisator investments, 560
- Tourism, Northern Territory, 1045
- Tourist (*see also* Travel)
 Commission, Australian, 1032
- Tractors on rural holdings, 837
- Trade (*see also* Imports and exports), 301
 agreements, 307-11
 balance of overseas, 316
 bilateral agreements, 309
 bullion and specie, 333
 calendar years, 334
 classified summary of Australian, 319
 collection and presentation of statistics, 313
 Commissioner Services, 130, 311
 commissioners, 130, 311-12
 commodity, classification, 316
 control, 305
 Constitutional powers, 301
 containerised goods, 314
 correspondents, government, 130
 customs tariffs, 301, 307, 1151
 Descriptions Act, 306
 direction of overseas, 323
 displays, fairs, etc., 312
 General Agreement on Tariffs and, 307
 Government authorities, 306
 import licensing regulations, 305
 indexes of value, 349
 interstate, 1114
 'Kennedy Round' negotiations, 307
 legislation affecting, 301
 marks, 494
 merchandise, 316, 318-9, 325-30
 method of recording, 313
 missions, Australian, 312
 negotiations, United Kingdom-Australia, 309
 pre-federation records, 316
 preferential and reciprocal tariffs, 301, 1153
 primage duty, 305, 599
 principal articles, exports, 320
 ports, 332
 representation overseas, 130, 311-2
 retail, 1101
 services, 311
 ships' and aircraft stores, 331
 special, 315
 statistical concepts of, 315
 statistics, basic documents etc., 313
 scope, 313
 Territories, 1046, 1058, 1078
 unions, 295, 1155
 members, 295-6
 valuation of, 314
 leasing arrangements, 315
 wholesale census, 1099
 with eastern countries, 331
 United Kingdom, 309, 323, 330
 various countries, 325-31
- Trades and Labour Councils, 297
- Trading banks, 520
 housing loans, 241
- Traffic
 accidents, road, 198-9, 201-2, 379
 control, air, 397
 railway, 364, 370, 371, 374
 telecommunication, international, 406
- Training
 colleges, teachers, 669
 technical, 668
- Train-kilometres, Government railways, 369
- Tramway and bus services, 375
 accidents, 375-6
 employees, 375-6
 passenger journeys, 375-6
 revenue and expenditure, 375-6
 rolling stock, 375-6
 vehicle kilometres, 375-6
- Transport
 accidents, 364, 375, 379-82, 397
 Advisory Council, 351
 air, 393
 and communication, 351
 grants to States, 582
 stores, government, 108
 Territories, 1046, 1054, 1058, 1079
- Trapping (*see* Hunting) 1091
- Travel, 1155
 Association, Australian National, 1155
- Travellers
 categories of, 157
 long and short-term, 1155

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Treasury bills and Treasury notes, 521-2, 527
 Treatment and processing, minerals, 974
 Tribunal, Prices Justification, 298
 Tribunals (*see also* Courts)
 War Pensions Appeal, 112
 Triplets, 185
 Trochus-shell, 914, 917, 923
 Tropical
 and temperate zones, Australia, 26
 cyclones, 28
 Medicine, School of Public Health and, 457
 Trunk line telephone calls, 404, 407
 Trust
 district, water, 879
 Electricity of South Australia, 991
 fund, Australian Government, 564
 Territories, 23, 1060
 Trustees savings banks, 527
 Trusts
 and partnerships, 593
 harbour (*see* Harbour boards and trusts)
 irrigation, 879
 National, Australian, 1019
 unit and land, 555
 Tuberculosis, 197-8
 allowance, rates of, 454
 campaign against, 454
 deaths, 197
 Tumours (*see* Neoplasms)
 Tungsten, 936
 Turnover, mining industry, 950
 Twins, 185
 Typhoid fever, 197, 469
 Typhus, 197, 469
- Underground water,
 Northern Territory, 896
 New South Wales, 883
 Queensland, 887
 Western Australia, 893
- Unemployment, 703-4
 benefit recipients, survey of, 446
 benefits, 413-4, 425
 persons registered, 725
- Unions, trade, 295, 1155
 Unit trusts, 555
 United Kingdom
 Australian trade agreement, 309
 long-term purchase arrangements, meat, 854
 preferential tariff, 302, 309
 trade, with, 309, 323, 330
 United Nations, participation in, 124
 United States of America-Australia Meat Agreement, 855
 Units of measurement, shipping, 356
 Universities, 660, 673
 and colleges, research activities, 1012
 Australian Government grants, 685
 degrees conferred, 674
 finance, 580
 full and part-time students, 674
 grants to States, 687
 overseas students, 677
 students enrolled, 674
 teaching staff, 676
- University
 courses, 674-6
 expansion and development, 660
 libraries, 1027
 students, 673-7
- Unoccupied dwellings, 205-6, 211
 Uranium, 936
 Urban boundaries, criteria for delimitation of, 140
 centres, classification by size, 142
 population, 141
 Utilisation of power from Snowy Mountains Scheme, 985
 water resources, 861
 whole milk, 812
- Valuations, local government, 613
 Value
 added, manufacturing establishments, 736
 mining establishments, 952
 and quantity of wool produced, 797
 egg production, 824
 honey and bees-wax, 827
 minerals produced, 964
 of cattle slaughtered, 808
 crops production, gross, 753-5
 exports, 317-21, 323-30
- Value—*continued*
 imports, 315, 317-9, 322-3, 325-30
 new buildings, 220
 output, central electric stations, 736-7
 factories, 729
 pigs slaughtered, 819
 poultry slaughtered, 822
 primary production, 1091
 production (*see also* individual industries) 1090
 electricity generated, 736-7
 fisheries, 919-21, 1091
 sheep slaughtered, 803
 whole milk production, 811
 wool, 798
 exported, 802
 Vapour pressure, 50, 63-72
 Variability, rainfall, 35
 Varieties of wheat sown, 757
 Vegetables, exports and imports, 784
 for human consumption, 783
 processed, 784
 Vehicles, motor, production, 740
 Veneers produced, 908
 Venereal diseases, 197, 469
 Vessels (*see also* Shipping)
 Australian trading, 358
 entered and cleared, overseas, 356
 naval, 99
 registered in Australia, 363
 Vineyards, 790
 Violent deaths, 198-9, 201-2
 Visual Arts Board, 1023
 Vital statistics, 171
 births, 178
 external territories, 202
 international, 203
 marriages, 172
 mortality, 189
 Voluntary agencies, social welfare, 447
 Voting
 Federal elections, 85-6
 referendums, 89-91
- Wage and salary earners in employment, 720
 Cases, National, 283
 Total, 283
 earnings, average weekly, 255
 margins, 283
 minimum, Federal, 283
 rates, 263-8, 283
 industry groups, 264, 266
- Wages (*see also* Earnings), 262
 and salaries, manufacturing establishments, 734
 mining industry, 950
 basic, 283 (*see also* minimum wages)
 Boards, 285-6
 male and female, 262
 mining and quarrying, 950
 minimum, States, 285-6
 railways, 374
 State awards, 284
 tax deductions system, 587
 total Federal, 283
- War
 Memorial Library, Australian, 686
 pensions, 111
 classes, 113
 miscellaneous, 115
 summary of, 112
 Service Homes, 229
 Land Settlement Scheme, 745
 Water catchments, preservation of, 866
 conservation, 581, 584, 643-52, 871
 Australian Capital Territory, 897
 and control, national aspects, 871
 irrigation, New South Wales, 876
 Queensland, 883
 States and Territories, 876
 utilisation, Tasmania, 893
 control and conservation, 871
 management, 870
 quality, 866
 resources, 861
 Council, Australian 871
 geographic background, 861
 international aspects, 875
 management, Australian Capital Territory, 896
 Northern Territory, 895
 Papua New Guinea, 897
 projects, grants to States, 581
 research, 865

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

- Water—*continued*
 storages, Victoria, 881
 supply etc., Victorian ten year program, 882
 revenue and expenditure, States, 643-52
 schemes, South Australian 888-9
 supplies, New South Wales, river, lake and farm, 880
 surface supplies, 862
 Trust Districts etc, N.S.W., 879
 works summarised, Victoria, 880
 Waters Agreement, Murray River, 872
 Waterworks, Tasmania, 651
 Weapons
 guided, production, 107
 Research Establishment, 106
 Weather, 28, 74-5
 Weekly rates of wage, 263-8, 283
 Weight of average fleece, 797
 Welfare
 cash benefits to persons, 413
 centres, infant, 463
 Fund, National, 413
 grants to States, 580
 services (*see also* Social Security), 413
 Northern Territory and Australian Capital Territory, 441
 Western Australia
 University of, 673
 Western Australian Fire Brigades Board, 493
 Whaling, 915, 917-9, 924
 Wheat, 755
 Agreement, International, 844
 and flour, exports, 761
 area and production, 757
 Board, financial operations, 761
 bulk handling and storage, 756
 delivery quotas, 844
 holdings, growing for grain, 757
 imports, 761
 Industry, contributions to Stabilisation Fund, 842
 Sixth Stabilisation Plan, 842
 Stabilisation Act, 761
 marketing and research, 841, 845
 price, 759
 principal exporting and importing countries, 763
 production and disposal in Australia, 759
 receipts by Wheat Board, 759
 Stabilisation Fund, 842
 standards, 755
 stocks, 760
 varieties sown, 757
 world area and production, 762
 Whole milk, utilisation, 812
 value of production, 811
 Wholesale establishments, summary of operations, 1100
 Wholesale prices and price indexes, 251
 basic materials and foodstuffs index, 252
 copper materials used in manufacture of electrical equipment, 258
 electrical installation materials index, 252
 materials used in house building, 254
 Melbourne index, 251
 metallic materials used in the manufacture of fabricated metal products, 257
 of butter and cheese, Australia, 814
 trade, 1099
 Whooping cough, deaths, 197
 Widow pensioners
 pensions, 413-4, 418
 survey of, 443
 training scheme, 428
 Wimmera-Mallee irrigation System, 882
 Wind, 56, 63-70
 capital cities, 63-70
 Wine and dried vine fruits, 849
 exports and imports, 791
 industry, 790
 Wireless (*see* Radio)
 Wollongong University College, 673
 Women's Royal Australian
 Air Force, 105
 Army Corps, 102-3
 Naval Service, 100
 Wood pulp, 909
 Woodchips, 909
 Wool, 850
 Board, Australian, 851
 carried on railways, 371
 classification by quality, 798
 Commission, Australian, 851
 consumption, Australia, 799
 Corporation, Australian, 851
 Deficiency Payments Scheme, 853
 exports, 800-2
 Industry Conference, Australian, 850
 levy, 852
 local consumption, 799
 marketing, 798
 Corporation Pty. Ltd., 853
 price and value, 798
 principal importing countries and sources of supply, 802
 production, 796
 promotion, 852
 quantity and value, 797
 Randall Committee on, 850
 research, 852
 and promotion, Australian Government's contribution to, 852
 Woollen mills production, 742
 Woomera Range, 106
 Work force (*see* Labour force) 689
 hours of, 262
 Workers'
 compensation, 295, 1155
 Working expenses, government railways, 372-3
 World
 area and production, wheat, 762
 area of countries, 25-6
 Health Organisation, 460
 population of largest cities, 146
 selected countries, 154
 production, wool, 802
 shipping tonnage, 363
 Yield per hectare, crops, 752
 sugar cane, 776
 Yallourn Power Station, 989
 Youth education, radio and television, 408-9
 Zinc, 934, 954, 976, 979
 Zoological gardens, 1029

* Page numbers of chief references are italicised. For list of special articles and other matter in preceding issues of the Year Book, *see* page 1153.

PRINTED PUBLICATIONS

(As at August 1975)

issued by the Central Office of the Australian Bureau of Statistics

The publications listed below may be purchased *through the mail* from Mail Order Sales, Australian Government Publishing Service, P.O. Box 84, Canberra, A.C.T. 2600; *over the counter* from the Government Publications and Inquiry Centres in each State capital; and *through the mail or over the counter* from the Deputy Commonwealth Statistician in each State capital.

The price of each publication is shown after its title, followed by the price including postage. Air mail and overseas rates are available on application. Account, standing order or reminder service facilities may be arranged with Mail Order Sales, Australian Government Publishing Service.

In addition to printed publications, a number of mimeographed publications are available in limited numbers free of charge.

Publications dealing with *individual States only* are produced by the Deputy Commonwealth Statistician in each State.

A complete list of publications issued by the Bureau is given in *Publications of the Australian Bureau of Statistics* available free from the Commonwealth Statistician, Canberra, A.C.T. 2600.

Dates of publications are printed in *italics*. A blank space indicates the publication is to be issued shortly.

GENERAL PUBLICATIONS—

Australian Capital Territory Statistical Summary, 1974. *Sept. 1974*. \$1.00, \$1.50.

Monthly Review of Business Statistics, 70c, \$1.10 per issue. Annual subscription \$11.30 incl. postage in Australia.

Northern Territory Statistical Summary, 1974. *May 1975*. \$1.00, \$1.40.

Official Year Book of Australia, No. 60, 1974. *1975*. \$7.00, \$8.20.

Pocket Compendium of Australian Statistics, No. 60, 1975. *July 1975*. 80c, \$1.20.

Quarterly Summary of Australian Statistics, \$1.40, \$1.90 per issue. Annual subscription \$6.50 incl. postage in Australia.

Seasonally Adjusted Indicators, 1975. *July 1975*. \$4.00, \$5.10.

OTHER PUBLICATIONS—

Australian Exports, Country by Commodity, 1973–74. *Feb. 1975*. \$2.50, \$3.60.

Australian Imports, Country by Commodity, 1973–74. *July 1975*. \$3.50, \$4.60.

Australian National Accounts—Input-Output Tables, 1962–63. *May 1973*. \$3.00, \$4.10 (incl. flow chart)

Australian National Accounts—National Income and Expenditure, 1973–74. *Sept. 1975*. \$1.95, \$2.45.

Authorities of the Australian Government, No. 13, 1974–75. *Sept. 1975*. \$2.00, \$2.40.

Banking and Currency, No. 11, 1972–73. *July 1975*. \$1.50, \$1.90.

Building and Construction, No. 8, 1971–72. *Oct. 1974*. \$1.50, \$2.00.

Causes of Death, No. 9, 1972. *Feb. 1975*. \$2.00, \$2.50.

Commonwealth Taxation Assessments, No. 10, 1970–71. *Aug. 1973*. \$1.00, \$1.40.

Demography (Population and Vital), No. 86, 1969 and 1970. *Sept. 1973*. \$2.50, \$3.60.

Imports Cleared for Home Consumption (incl. Tariff Description), No. 15, 1973–74, Part 1, *July 1975*. \$6.00, \$7.10; Part 2, *July 1975*. \$7.50, \$8.70.

Insurance and Other Private Finance, No. 8, 1970–71 and 1971–72. *Jan. 1975*. \$2.00, \$2.50.

Labour Report, No. 58, 1973. *Aug. 1975*. \$4.00, \$5.10.

Manufacturing Establishments, Details of Operations by Industry Class, Australia, 1972–73. *June 1975*. \$3.00, \$3.50.

Overseas Trade, No. 71, 1973–74. *July 1975*. \$9.00, \$10.20.

Public Authority Finance, No. 1, 1969–70. *Aug. 1972*. \$2.00, \$2.50.

Rural Industries, No. 8, 1969–70. *June 1974*. \$2.00, \$2.50.

Transport and Communication, No. 63, 1971–72. *Feb. 1975*. \$2.00, \$2.50.

SPECIAL PUBLICATIONS—

Australian Life Tables, 1965–67. *May 1974*. 35c, 60c.

The Australian Mineral Industry (Quarterly Review and Statistics). * \$1.00 for each issue.

Classification of Rural Holdings by Size and Type of Activity, 1968–69—Bulletins Nos. 1. N.S.W.; 2. Vic.; 3. Qld; 4. S.A.; 5. W.A.; 6. Tas.; 7. Aust. *May 1972*. \$1.00, \$1.40 each.

For footnotes see page 1185.

1971 CENSUS OF POPULATION AND HOUSING—

Bulletins. Final results of the 1971 Census of Population and Housing are being released in a series of fourteen bulletins, seven of which consist of separate parts for States and Territories. For those issued to date the month of publication is shown.

Bulletin 1. SUMMARY OF POPULATION. July 1973. 25 cents each part (50c)—

- Part 1. New South Wales.
- Part 2. Victoria.
- Part 3. Queensland.
- Part 4. South Australia.
- Part 5. Western Australia.
- Part 6. Tasmania.
- Part 7. Northern Territory.
- Part 8. Australian Capital Territory.
- Part 9. Australia.

Bulletin 2. SUMMARY OF DWELLINGS. Sept. 1973 to Jan. 1974. 25 cents each part (50c)—

- Part 1. New South Wales.
- Part 2. Victoria.
- Part 3. Queensland.
- Part 4. South Australia.
- Part 5. Western Australia.
- Part 6. Tasmania.
- Part 7. Northern Territory.
- Part 8. Australian Capital Territory.
- Part 9. Australia.

Bulletin 3. DEMOGRAPHIC CHARACTERISTICS. Jan. 1974. 25 cents each part (50c)—

- Part 1. New South Wales.
- Part 2. Victoria.
- Part 3. Queensland.
- Part 4. South Australia.
- Part 5. Western Australia.
- Part 6. Tasmania.
- Part 7. Northern Territory.
- Part 8. Australian Capital Territory.
- Part 9. Australia.

Bulletin 4. BIRTHPLACE. Jan. to Feb. 1974. 25 cents each part (60c)—

- Part 1. New South Wales.
- Part 2. Victoria.
- Part 3. Queensland.
- Part 4. South Australia.
- Part 5. Western Australia.
- Part 6. Tasmania.
- Part 7. Northern Territory.
- Part 8. Australian Capital Territory.
- Part 9. Australia.

Bulletin 5. THE LABOUR FORCE. March to April 1974. 25 cents each part (50c)—

- Part 1. New South Wales.
- Part 2. Victoria.
- Part 3. Queensland.
- Part 4. South Australia.
- Part 5. Western Australia.
- Part 6. Tasmania.
- Part 7. Northern Territory.
- Part 8. Australian Capital Territory.
- Part 9. Australia.

Bulletin 6. POPULATION AND DWELLINGS IN LOCAL GOVERNMENT AREAS AND CENTRES.

January 1975—

- Part 1. New South Wales, 35c (70c).
- Part 2. Victoria, 35c (70c).
- Part 3. Queensland, 35c (70c).
- Part 4. South Australia, 35c (70c).
- Part 5. Western Australia, 35c (70c).
- Part 6. Tasmania, 35c (70c).
- Part 7 & 8. Northern Territory and Australian Capital Territory, 35c (60c).
- Part 9. Australia, 50c (90c).

Bulletin 7. CHARACTERISTICS OF THE POPULATION AND DWELLINGS—LOCAL GOVERNMENT AREAS. *Jan. to May 1974*—

- Part 1. New South Wales, \$8.00 (\$9.40).
- Part 2. Victoria, \$7.00 (\$8.40).
- Part 3. Queensland, \$6.00 (\$7.40).
- Part 4. South Australia, \$5.50 (\$6.70).
- Part 5. Western Australia, \$5.00 (\$6.20).
- Part 6. Tasmania, \$2.00 (\$3.10).
- Part 7. Northern Territory, 50c (90c).
- Part 8. Australian Capital Territory, \$2.00 (\$3.10).

Bulletin 8. CHARACTERISTICS OF THE POPULATION AND DWELLINGS—COMMONWEALTH ELECTORAL DIVISIONS. *May 1974. \$4.00 (\$5.10).*

Bulletin 9. THE ABORIGINAL POPULATION. *Sept. 1973. 40c (80c).*

Bulletin 10. FAMILIES AND HOUSEHOLDS.

Bulletin 11. FERTILITY.

Bulletin 12. GEOGRAPHIC DISTRIBUTION.

Bulletin 13. MAPS. Individual maps and prices (excluding postage) are listed below—

- General Statistical Division map of Australia, 40c.
- General dot distribution map and rainfall belts of Australia, 40c.
- Statistical Division map for each State, 40c each.
- Capital City Statistical Division maps, 40c each (Hobart 20c).
- The Northern Territory and Urban Darwin, 20c.
- Canberra Statistical District and Urban Canberra, 20c.
- East Central New South Wales (Newcastle to Wollongong and hinterland), 40c.
- Geelong Statistical District and Latrobe Valley, 20c.
- New South Wales urban centre map covering: Albury-Wodonga, Condobolin, Kempsey, Orange, Tamworth, Taree, Wagga Wagga, 20c.
- Victoria urban centre map covering: Ballarat, Bendigo, Castlemaine, Colac, Koroit, Wonthaggi, 20c.
- Queensland urban centre map covering: Bundaberg, Cairns, Gladstone, Gold Coast, Mackay, Maryborough, Mount Isa, Rockhampton, Toowoomba, Townsville, 20c.
- South Australia urban centre map covering: Jamestown, Kadina, Moonta, Mount Gambier, Murray Bridge, Port Pirie, Strathalbyn, Victor Harbor, Wallaroo, Whyalla, 20c.
- Western Australia urban centre map covering: Albany, Geraldton, Kalgoorlie, 20c.
- Tasmanian urban centre map covering: Launceston and Devonport/Wynyard area, 20c.

Bulletin 14. CATALOGUE OF 1971 CENSUS TABULATIONS. *Oct. 1974.*

* Prepared jointly by the Bureau of Mineral Resources and the Australian Bureau of Statistics. Available from the Bureau of Mineral Resources, Canberra, the Department of Minerals and Energy, Melbourne and Sydney, and the State Controller, Department of Manufacturing Industry, Brisbane, Adelaide and Perth.

† Flow chart may be purchased separately, price 50c, 80c.

